

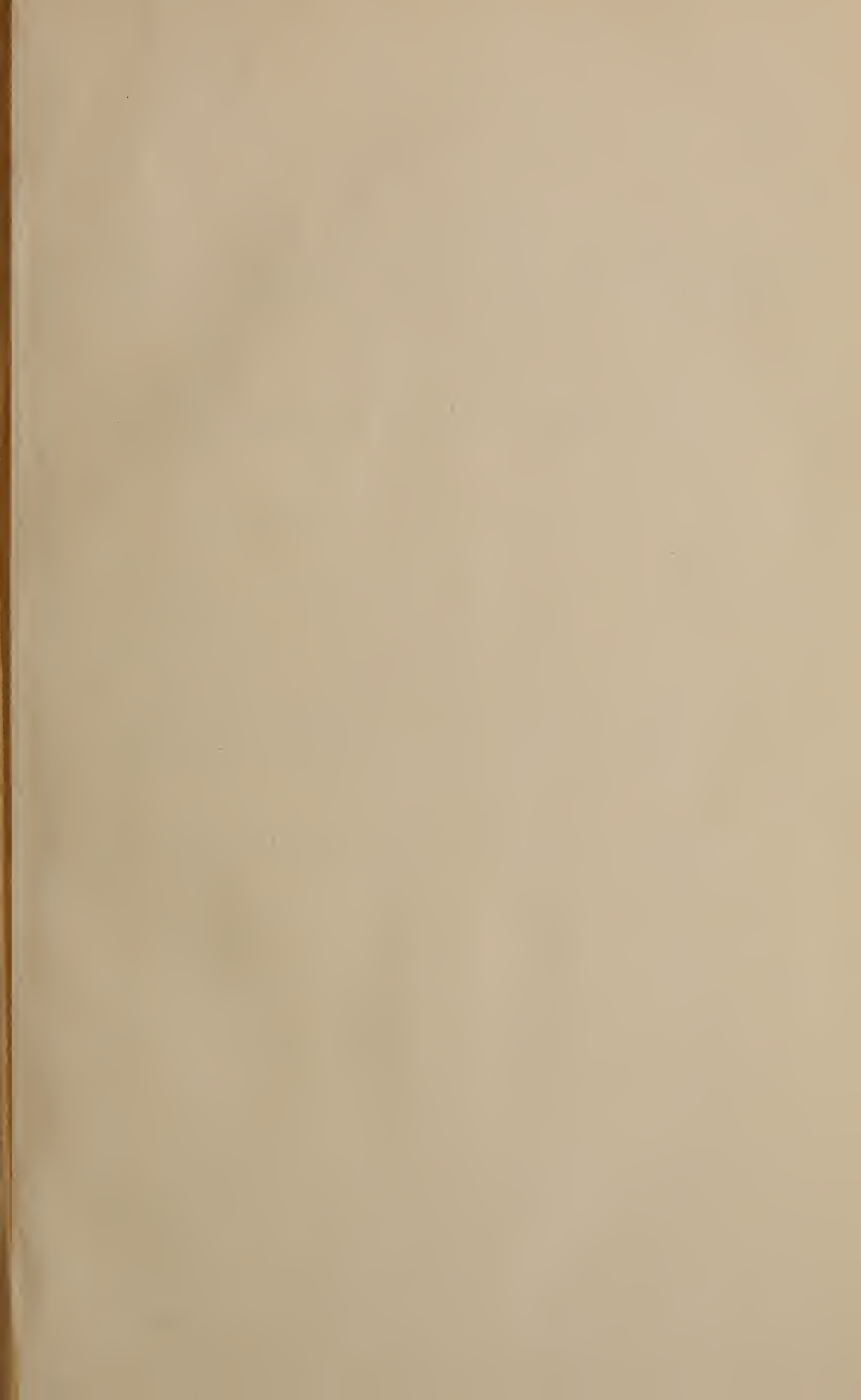
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EDITED BY
HOWARD VAN RENSSELAER, M. D.

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JANUARY, 1893.

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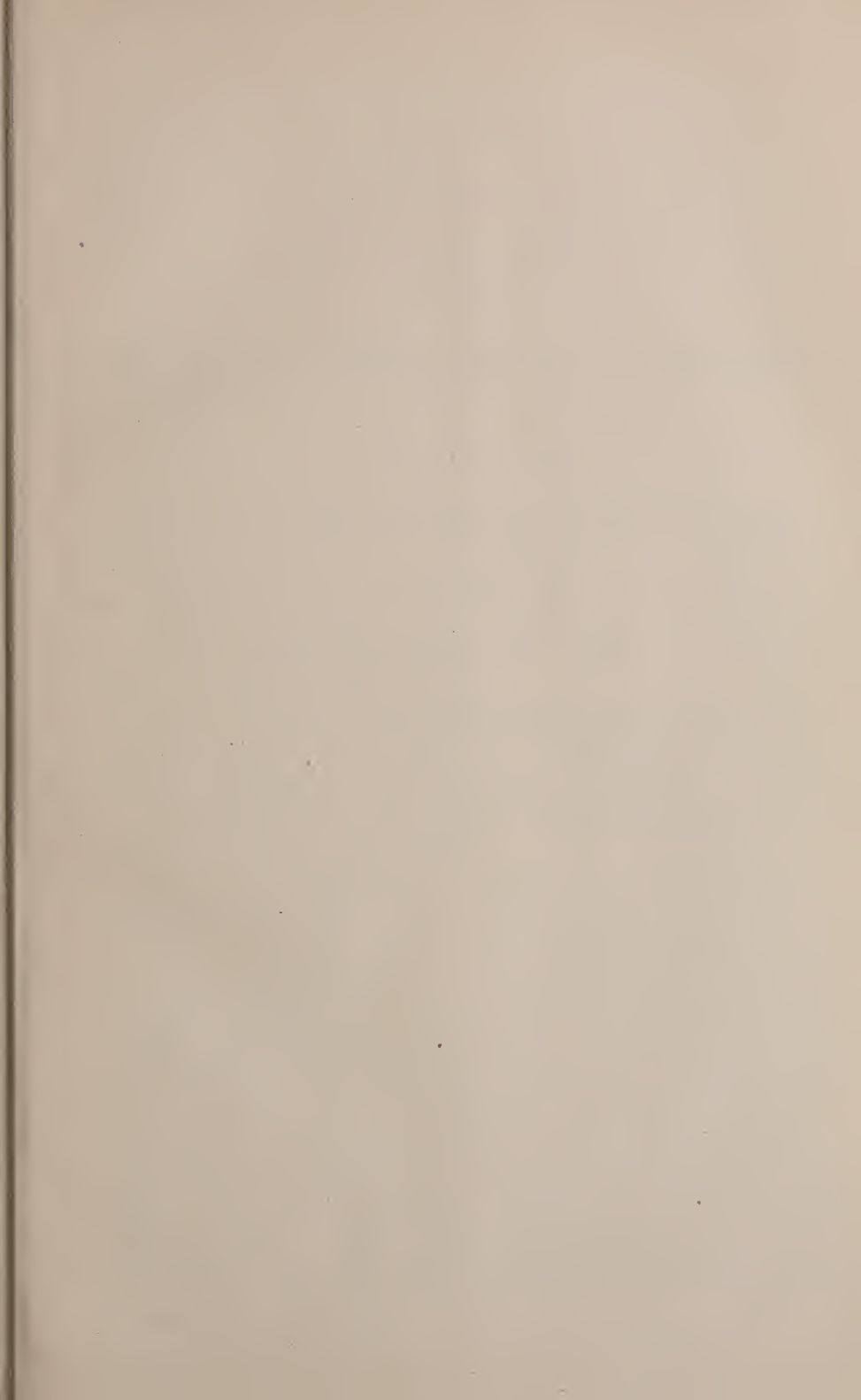
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THE

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No. 1.

The Use of the Currette in Uterine Surgery.

BY A. VANDER VEER, M. D., PROFESSOR OF DIADACTIC, ABDOMINAL AND CLINICAL SURGERY, ALBANY MEDICAL COLLEGE, ALBANY, N. Y. READ AT THE MEETING OF THE VERMONT STATE MEDICAL SOCIETY, THURSDAY, OCTOBER 13, 1892.

I am aware that in many respects this subject is not a new one to my hearers, and that I am approaching dangerously near to the point of "Carrying coals to Newcastle," yet I am convinced that there is still in the theme much that can be discussed to our mutual good.

First. As to the class of cases that come to the general practitioner in which this line of treatment is to be employed. I am not one of that number whose dogma seems to be that everything special ought to go to a specialist, but rather that the general practitioner must, in many situations, and under many surroundings, act the part of a specialist, doing that which the immediate present calls for, and then when his skill or opportunities tell him clearly that he has exhausted his powers, to send for, or send his patient to the specialist. In this way I am sure the number of chronic invalids will be reduced to the minimum and much suffering avoided. The duty of the general practitioner becomes greater, with each advance made in every department or specialty, in medicine or surgery. He must learn to recognize and diagnose his

case if nothing more. In like manner the specialist has resting upon him the great responsibility. His superior advantages, originally given and maintained by his brother, the general practitioner,—in his bestowal of confidence—demand that he make so clear his diagnosis and alignment of cases as to aid and not mystify.

Now as to the class of cases: Begin with the young girl; she has her constant hemorrhage at the commencement of menstruation. She is the favorite daughter of one of your best families; her parents are your best supporters in many ways, or, she is the daughter of the skilled mechanic, the plain, outspoken farmer, the widowed mother, the orphan; in other ways the humblest one in the walks of life. To the skill of the physician each should present like claims to the careful investigation of the case. It is determined, and rightly, that all medical treatment be first exhausted—medicines, massaging, electricity, climate, all, as far as possible, be tried, and I repeat that this is proper, for I am strongly of the faith that no young girl should be subjected to a pelvic, vaginal examination until it becomes absolutely necessary. But she does not recover. Now, by an examination, under an anæsthetic—as is necessary in many of these cases—there is found some form of flexion, with an enlargement of the body of the uterus, tender and sensitive to the touch, or, there is a stenosis of either the external or internal opening of the cervical canal, with partially retained menstrual flux, or there is a polypus present, or, in a lesser degree, that condition denominated endometritis fungosa, or, as the result of some illness, some injury, a traumatism of any kind, a pelvic peritonitis, your patient has that condition denominated in the text-books chronic endometritis. These are only a portion of like conditions you find in your cases, when once you determine upon a thorough physical examination. These are the cases I submit in all candor as proper ones to be treated by the use of the currette.

To illustrate: Mrs. L., aged twenty-six, whom I saw March 19, 1892; married six weeks; was a patient of mine

previous to her marriage; had suffered more or less for a period of eight years from continued leucorrhœa, and always an increased flow, more than normal, at her menstrual period, at times amounting to a hemorrhage. I had frequently urged upon them the necessity for an examination, but this she and her parents declined. She would sometimes improve under tonics, change of air and scenery, but only to relapse again when going on with her society work and household duties. After consulting with her husband, she concluded to have a thorough examination. I found a marked erosion of the cervix, retroflexion, a small polypus, and a most intense vaginitis, the vagina filled with granulating tissue. The parts were thoroughly cleansed, packed with iodoform gauze, followed by great improvement, and finally she went on to recovery.

This group extends from the young girl, through school life into womanhood, perhaps to become the maiden who is known as the delicate one in the family, to be placed in bed a certain number of days in each month—not a great inconvenience to some, to others a loss of time, of labor, to be measured by the bread and butter standard—or to throw upon some other member of the family a greater strain and possible illness in that one to follow. In the interval of an improvement, that has been brought about by great perseverance of treatment, a marriage is contracted, and perhaps a pregnancy becomes the currence that to this patient brings health. Her friends are joyous, she looks and appears so much better since the baby came. But there is another side to this class of cases. The marriage does not result so fortunately. The young wife, anxious to please her husband in social life, does her utmost, and but too often the extra exertion brings on that strain which increases the serious symptoms that ultimately terminate in a collapse. A trip abroad does very little good. Alas—tissue changes have occurred. The case now, that could have been treated successfully by comparatively safe and simple means, has associated with it diseased tubes, and in some form, probably, diseased ovaries.

The husband tires of treating his young and invalid wife; she returns home, he elsewhere, or, if he is of the better portion of humanity, he has before him a long and expensive line of treatment in bringing back to health his dear one. If the marriage be in and among another walk in life, the poor, honest, loving husband gives of his sympathy and means all that he can, too often to remain in dire distress, recovering from it only in such cases as where health is restored by some fortunate, formidable operation.

The husband of another class shows his brutal nature too often by indulgence in drink, by immoral conduct, the latter condition bringing to his wife additional suffering, at last to abandon her, or she to live on the most miserable of lives, the wife of a dissipated and cruel man.

Second. Another class presents, particularly in the married. She was comparatively well until the birth of her first child. Now, either from want of proper care, or indiscretion on her part, she has a slow getting-up; she moves on in society, or she continues her household duties, her mill work or otherwise, as the case may be, but she is not well. She fades in her beauty of person, and every duty in life becomes irksome. At last a careful examination is made and there is found subinvolution (chronic metritis) in a marked degree, a version or flexion is present, with all its attendant troubles, a lacerated cervix, possibly a polypus, perhaps nothing more than a well-marked endometritis that has followed her previous miscarriage or full-term confinement.

Third. Another class that presents in a much more prompt and acute form. The miscarriage or confinement is over; it may have been instrumental, it may have been complicated by retained placenta, in portions or otherwise; at the end of the second, third or fourth day she has a chill, and rise in temperature, with other symptoms familiar to you all. Some of the older writers, and too many of our text-books diagnose the case as puerperal fever. The old nurse, the good women among the relatives say she has the lying-in fever, a few more advanced, say blood poisoning. We think

of what? Pyemia, septicæmia, sapræmia, conditions that worry and alarm us; we make a careful examination; there is some laceration of the cervix, possibly more or less severe, a marked tenderness of the body of the uterus and cervical canal, a nasty, unpleasant discharge; a hot vagina, and many other symptoms with which you are familiarly acquainted.

Let the following case illustrate: Mrs. W., aged twenty-four, whom I saw January 11, 1891. Presented an excellent appearance of health; had been confined of a healthy child five days previously; labor apparently normal in every respect. At the end of the second day she developed a temperature of 101 which increased each day, with pulse 120 and an offensive discharge from the vagina. When I saw her with her family physician, Dr. Bigelow, her temperature was 104. She was indifferent to all about her; said she felt easy and wanted to be left alone and sleep. There was no marked tenderness over the abdomen; no distension; uterus was somewhat soft to the touch. Immediate preparation was made for a thorough curretting. She was given a very small amount of ether and the operation performed in the most complete manner possible. In eight hours her temperature was down to normal, pulse ninety-six, she was bright and cheerful, and went on to uninterrupted recovery. Has since been confined of another child and everything passed off in a perfectly normal manner. I removed in this curretting more than an ounce of granular fungoid-like growth-proliferating cells from endometritis—and no doubt had not some active interference been instituted the case would have gone on to complete puerperal fever and probable death. I know of no one operation bringing about more pleasing results than a case like this.

But just here let me warn you, in a case like this, when you have once curretted the uterus thoroughly, not to be led into the error of flushing it with so-called antiseptic solutions, such as carbolic acid and mercurials. The following case is so much to the point that I feel to copy it:

Krukenberg (*Zeitsch. f. Gynak.*, Band xxi., Heft) describes

a case of poisoning from a 2.7 per cent solution of carbolic acid injected into the uterus of a multipara who had aborted, after some necrotic decidua had been brought away by curretting. The pulse suddenly failed while the injection was being given: then, as the pulse improved, the breathing ceased, which, after a time, was overcome by artificial respiration. Death followed ten days later, the post-mortem showing acute parenchymatous nephritis with endocarditis. The case once more proves the grave dangers of employing poisonous antiseptics in washing out the puerperal uterus.

It cannot be denied that some of these cases have and do recover without curretting, yet in what manner? Without doubt by the way of damaged tubes, pyosalpinx, ultimately to result in their removal by an operation that ought always to be avoided, if possible. Or a pelvic abscess that finds its way either into the bladder, vagina or intestinal tract, bringing with it a long train of invalid symptoms, perhaps ultimately a severe operation. Or a more sudden and serious termination—rupture into the peritoneal cavity, and death from shock, and collapse or purulent septic peritonitis. These last conditions, just mentioned, I am sure could often be averted by a prompt, careful but thorough curretting. The streptococci have not yet entered the tubes, and their march can be arrested. On this subject I would refer to a very valuable paper by Dr. Ernest Laplace, of Philadelphia, read in the section of Obstetrics and Diseases of Women at the American Medical Association at Detroit, June, 1892.

Fourth. Another class of cases perhaps occurring at any time in life, married or single, but more particularly after twenty-eight or thirty years of age up to, and including, the menopause are as follows:

A menorrhagia first then a prolonged metrorrhagia, at times almost a constant flow. On examination there is found a polypus, projecting from the uterus, or a fibroid, large or small, but presenting a bleeding surface, a sub-mucous or interstitial variety. The polypus is removed by snare or ecraseur, but the hemorrhage is not fully controlled—the cervical canal should have been curretted.

The fibroid is small, it seems hardly necessary to subject the patient to so severe an operation as removal of the uterine appendages, or supravaginal hysterectomy. A thorough curretting is safely done, the hemorrhage is controlled, menstruation becomes normal and occasionally the tumor disappears, precisely as these tumors do sometimes under the influence of pregnancy. Let me emphasize the former by a case from my notes, and also the latter by another case.

Miss P., aged forty-four, suffered for eight years from pretty continuous hemorrhage, due to a uterine fibroid. Had had all manner of treatment with drugs, electricity, etc. I saw her June 26, 1882, and found her suffering from an interstitial fibroid, apparently the size of a large orange. She was very anæmic, somewhat emaciated, unable to move about, and herself and friends had little hope of her recovery. I suggested a thorough curretting with the hope of arresting the hemorrhage in that way, trusting that as she was so near her menopause if the hemorrhage could be controlled she would yet go on to recovery. The curretting had some beneficial effect in the immediate control of the bleeding, but at the end of ten days she was taken with severe uterine contractions, expelled the tumor, in the form of a polypus, into the vagina, and which I had very little trouble in removing. From this time she made an excellent recovery, and is now in the best of health. I have no doubt that curretting loosened the capsule so that the uterus was able to grasp and throw off the tumor in this way.

Mrs. C., aged thirty-two, In her second confinement her child was delivered, but her physicians were unable to remove the placenta, and I was sent for. I found her with the lower segment of the uterus empty, but the upper portion of the fundus retained the placenta, which I did not have very much trouble in removing, but found that she had a uterine fibroid the size and shape of a goose egg. She recovered from her confinement and two years afterward in making an examination no trace of the fibroid could be discovered. I have no doubt but that in the process of involu-

tion that took place after the birth of her child the fibroid was absorbed.

Then again the fibroid may be large and the hemorrhage has exhausted the patient to that point where surgical interference becomes exceedingly dangerous. (The patient and friends have all along fought against an operation of any sort.) Electricity has been tried, medicines of all kinds, but no favorable results follow. She is now too weak for any operative interference possible. In these cases I have seen good resulting, not only in the control of the hemorrhage, but in diminishing the tumor, by careful, thorough curretting.

Let me cite here another case, one of a number: Mrs. L. A. S., aged forty-three, married December 26, 1867, has one child twenty-two years old, no miscarriages. Family history that of phthisis on both sides. First menstruated at eleven, always regular but very painful. Fifteen years ago had typhoid fever, menstrual condition remaining about the same. In the winter of 1891 suffered from la grippe, and in April felt an enlargement in the left inguinal region which gradually increased in size, and sensitive to the touch. Soon after this she noticed a gradual increase of the menstrual flow with each period, and which continued at times quite severe. From November, 1891, until the time of her admittance to the Albany hospital, April 2, 1892, she flowed almost constantly. Bowels were constipated, and she felt the desire to pass urine every two hours. On physical examination she presented a large interstitial fibroid with a bleeding surface projecting into the cavity of the uterus. The uterine sound passed in to nearly the depth of seven inches. The tumor was only slightly movable, evidently having many attachments. Owing to her weak condition—being very anæmic, and inclined to frequent attacks of syncope—it was thought best not to attempt supravaginal hysterectomy. It was not considered advisable to encourage her in the belief that the appendages could be removed, as they probably could not. In order to put her in somewhat better condition, by control-

ling the hemorrhage, I recommended thorough curretting, which was done, and with satisfactory results. A portion of the exposed fibroid was removed, in this manner the hemorrhage largely controlled, and the patient very much improved, so that the latter part of June she was in a much better condition for a radical operation, although the tumor had diminished fully one-half. The case is still under observation.

Even in these desperate cases while the hemorrhage may not be permanently controlled or the tumor lessened, yet it not infrequently brings your patient in a much better condition for the more formidable operation which it is now plain to herself and friends must be done.

A class of cases that call for careful consideration are those in which the patient believes that she is passing her change of life (see my paper, "She Thought it was Her Change of Life," published in *American Journal American Medical Association*, July 5, 1890). Too many times these patients are sadly mistaken and we have yet something to teach them on this point, at least an early examination should be insisted upon.

A case that illustrates so decidedly procrastination on the part of the patient in reference to a physical examination, is exhibited in the following history: Mrs. A. G., aged fifty-six; married twenty-eight years; no children. Has never been pregnant, and always regular in her menstruation, though not at all free, the flow seldom lasting more than three days, and not excessive. I saw her August 26, 1892, with Dr. Ullman, of this city, Six years ago when in full health her menses stopped at once and gave her no serious trouble at the time. She is a hard working housewife, does much outdoor exercise, and accustomed to being on her feet a great deal, yet in no way did she suffer inconvenience from the cessation. She remained in good health until May, 1891, when she began to flow. Was somewhat disturbed in her mind about it, not thinking it to be the proper thing, still continued on about her work, though the flow kept up more

or less, sometimes very severe, amounting to a hemorrhage, later occurring every four or six weeks. Dr. Ullman was called to see her first in January, 1892. Up to this time she had always opposed an examination from any physician, and even now was unwilling to have it done. Complained of more or less desire to pass water constantly, and which had been the case since July, 1891. Finally she consented to a physical examination, when the doctor found the uterus of about normal size, but on introducing the sound the flow came on very quickly, and was not easily controlled. Treatment has been that of medicines internally and local douches. For the past two months she has had much burning pain in her back and dragging sensation through the pelvis, more severe for past two weeks, a severe constipation, requiring the taking of laxatives, bowels not moving more than once in two or three days. At the present time she looks very anæmic, is emaciated, cannot sleep, no appetite, and occasionally vomits a glairy-like, white fluid. There is some swelling of the legs, particularly of the left one below the knee, both legs presenting a condition of varicose veins, while the right one has the evidence of old varicose ulcers. Is now passing urine very frequently. On careful bi-manual examination the fundus of the uterus was found very much enlarged but the organ was somewhat movable and prolapsed, the os presented as a very small conical shape, with pin-hole opening through which the small uterine probe passed to the depth of five inches. The uterus was sensitive to the touch. There was no ulceration of the cervix, no evidence of any severe vaginitis. The patient was very anxious to have something positive done. In this case it would be very difficult, and I fear quite impossible, in consequence of the attachments of the uterus, to do a vaginal hysterectomy. I advised, therefore, a thorough, careful curretting, after complete dilatation, with a hope that it might arrest the hemorrhage and place her in a better condition of strength. This was consented to and done later, but the detritis on examination proved it to be a case of sarcoma of the uterus, with no possible chance of an operation affording her relief.

Another illustration: Mrs. T. W., aged fifty-nine, whom I saw July 3, 1889, stated that for a period of five years she had been passing through her change. She had flowed irregularly, but for the past two years had flowed quite continuously, sometimes going on for a period of four or five months. She was very anæmic and much exhausted. Upon examination I found the uterus uniformly enlarged, and presenting all the characteristic appearance of a three months' pregnancy. It was movable, not especially sensitive to the touch. Her time of life and all led one to fear malignant disease. She had been treated all this time by the taking of medicines and local washes: had quite entirely declined to have an examination at any time. Upon proper representation to herself and family, a careful examination was allowed, and the diagnosis of uterine fibroid or submucous polypi was made. She consented to have the operation of curretting. This was thoroughly done and a large amount of detritis, made up of small polypi, granulating tissue, and such material, as is found in similar cases, removed, and the uterus well packed. The debris was carefully examined, under the microscope, and found to be made up of simply polypoid granulating tissue, non-malignant. She did well for about a period of four months when her flow returned, and the symptoms presented again in an aggravated form. I now did a second curretting more thorough and complete than at first. After this she made a permanent recovery and at the present time shows an excellent appearance of health, the uterus is quite normal in size, atrophy taking place about as it should in one at her time in life.

Another class of cases, that of advanced age. The menopause has been passed perhaps anywhere from one to ten years; a hemorrhage then appears. At first many women actually think it is a return of their menstrual periods—a sad delusion in too many cases—going on, until when once an examination is made, the diagnosis of advanced malignant disease is too apparent. Yet right here I wish to make a statement and to differ from many of our text-books. These

cases are not by any means always malignant. Quite a percentage are only cases of foreign growth from the endometrium—small polypi, etc., and can be successfully treated by thorough curretting.

To illustrate this class of cases I would speak of Mrs. R., aged sixty-three who had passed her change some thirteen years before, had been in apparently good health, when suddenly she began to flow, and believed that her periods had returned. The case would naturally arouse one's suspicion as to malignant disease, and yet this was nothing more than a simple hemorrhage due to a slight endometritis, which finally passed away under treatment, and the patient continued in good health, dying at the age of seventy-five. We would naturally conclude when seeing such a case, and with truth, that the chances were she was developing a case of malignant disease.

Another case, that of Mrs. F., aged seventy-four, and whom I saw fifteen years ago in consultation with her family physician, had a flow develop some ten years after her change, and which had been a source of great alarm to herself and family. Upon examination I feared, from the hardened condition of the cervix, that it was likely to be a genuine case of carcinoma, yet on removing some of the detritis from the cervical canal, and examining it, it did not present any of the characteristic conditions of malignant growth. It was evidently a case of endometritis fungosa. Curretting was done, applications were also made to the lining membrane of the uterus, which seemed to be necessary about once in six months or once a year, and sometimes going much longer than that. At the present time she occasionally has a slight hemorrhage, but is in excellent health, has no enlargement of the organ, or infiltration of the appendages. This case has evidently been one of non-malignant endometritis fungosa.

A class of cases in which we must be careful and not place too much reliance in the use of the curette, only perhaps as a means of diagnosis and in all cases after curretting that

we are at all in doubt as to the nature of the case, whether it is malignant or not, the patient should be watched with much care afterwards. The point I wish to bring out is very well illustrated in the following case :

Mrs. E. M. K., aged thirty-eight, married seventeen years ; one child aged sixteen years ; confinement normal ; never had any serious illness ; regular in her menstruation ; became a widow seven years ago, married her second husband five years ago, and has been perfectly regular in her menstruation until her present trouble. Believed herself to be well, when suddenly in May, 1892, she had a severe attack of hemorrhage. She was seen by her attending physician and after a thorough course of medicine, submitted to curretting of the uterus some time the latter part of June. In July, she had, as she believed, a normal, regular, menstrual flow. Some time during July she was visited by her family physician, but no examination was made. In fact no examination was made at any time after the curretting, as she stated. In August she had another severe hemorrhage, the local pain being now very severe, her system showing much exhaustion. She came to my office August 25, 1892, presenting the characteristic appearance of great loss of blood. I gave her a careful examination and found a large epithelial growth, implicating the entire cervix and extending somewhat down the vaginal wall. The mass was movable but there was evidently infiltration of the broad ligaments. I did not think an operation advisable. Had this case been carefully watched after the curretting it would have been apparent in a short time that vaginal hysterectomy would have been the proper operation for her, and might have resulted in permanent recovery. This patient has at various times since curretting been anxious to have another examination and the more complete operation—as she informs me— but that her female friends, the old ladies particularly, were constantly importuning her not to have anything more done, as it was simply her change of life and she would come out all right later on. .

It is not to be expected that a paper of this kind will cover

the subject so completely as a chapter in one of our advanced text-books, or a diadactic lecture, yet these, to sum up, are the conditions in which I would recommend the thorough use of the currette in the manner I shall presently describe:

Prolonged hemorrhage in girlhood, womanhood, adult life, advanced age.

Hemorrhage from small or large fibroids, and from hydatids.

Hemorrhage from endometritis fungosa at any time in life.

Septic conditions following miscarriage or full-term delivery.

Sub-involution—chronic metritis—acute or chronic endometritis associated with or without laceration of the cervix. Many cases of laceration of the cervix require, a short time previous to the operation for repair, a careful curretting.

Cases of painful menstruation, due to cervical stenosis, and where it is determined to wear, after dilatation, an intra-uterine stem pessary.

Cases of retro and anti-flexion, causing great enlargement of the body of the uterus.

Contra-indications are very few. Much care is necessary in curretting fibroids to recognize a thin uterine wall. If pus tubes are present, without doubt, then avoid the currette and do an abdominal section. A double uterus must be recognized, and both cavities carefully examined. These cases are, however, exceedingly rare.

I am not unmindful of the criticism that is made, and with a good line of reasoning, against invading the cavity of the uterus in the manner I have spoken of, and in the use of the currette, but I wish to be distinctly understood that the instrument is only to be used when followed by proper drainage, and that drainage I believe to be secured in the best possible manner by properly introduced antiseptic gauze. The kind of currette that is to be selected must receive careful consideration. The sharp and the dull instruments have both had their advocates, and I believe too much stress has been laid upon the importance of using one or the other.

The manner of using the currette, the position in which the patient should be placed, all should be carefully considered. The first and necessary preparation of the patient—who is about to undergo this operation—is the importance of a thorough washing and cleansing of the external genitals, a complete bath and proper antiseptic vaginal douche. A rubber pan if possible should be employed during the time of the operation, but is not always absolutely necessary. The parts should be thoroughly scrubbed with soap and every condition of the patient put in as aseptic a state as possible. The one point next to cleanliness that I would advise above everything else, is the complete and thorough dilation of the cervical canal. This may be done by either Peaslee's steel dilators, or Hank's hard rubber uterine dilators or any of the various forms of instruments of this sort. Under ether, by their means, the cervical canal can be rapidly dilated and this is far preferable to the old method of the use of tents. If the latter are to be made use of the Laminaria or Tupello ones are preferable to the sponge tents. Seldom in septic conditions following the puerperal state is dilation required. In all other cases, the patients will need it. As I have stated, dilatation by any form of tents is hardly admissible. The patient will generally require an anæsthetic, then, instruments having been placed in hot water, patient either in the recumbent position using a good bi-valve speculum with short anterior lip, or, better yet, on the left side, using a large Sim's speculum with short lip, and attention to this latter point is very necessary. Then by fixing the uterus firmly, bringing it well down to the edge of the pelvic outlet by means of the double vulsellum forceps you straighten the uterine canal in cases of flexion. Now I usually make use of the uterine sound with which to get my bearings. In cases of uterine fibroid it enables you to locate the tumor, length of uterine canal and thinness of uterine wall. Also as to multiple polypi in the uterine cavity. Next I attempt gradual dilatation with either of the aforesaid dilators. If this process is likely to prove too tedious I then make use of rapid

dilatation by means of the uterine steel dilator, selecting that form of instrument in which the blades are actually parallel with each other, that the minimum of traumatism is done to the cervical or uterine tissues. When the dilatation is sufficient so that your curette will pass in and out freely, the conditions are favorable for going ahead. If the case is a septic one the dull curette will often be sufficient, and is perhaps safer than the sharp one. The instrument should be entirely of metal.

If you are curetting in cases of fibroids, chronic endometritis and like conditions, the sharp instrument is undoubtedly the surest, and the curette that has the return flow so that all the detritus can be immediately washed out and its appearance kept under observation, is by all odds the best.

As a fluid I am much in favor of using boric acid, a drachm to the pint of hot water, or Thierch's solution composed of, boric acid, four grains; salicylic acid, one grain; water, one ounce. Using only in very putrid, and offensive cases the various preparations of the mercurials. The latter may be used in the strength of 1:2000 (washing freely after its use) or, safer still, 1:3000 or 1:10,000. Up to this point the work has been thoroughly done and now a stage is reached which requires care and courage. Some five years ago I learned to know that while curetting had been of service in my cases, yet the method of drainage afterwards—using stem pessary, etc.—had not been entirely satisfactory, and I determined (though not seeing it mentioned anywhere), to make use of gauze packing to secure capillary drainage, in the same manner as I drained my cases of abdominal section through the glass drainage tube. (I would state here that in such a case as where the cervical canal shows a decided disposition to re-contract, a strong intra-uterine glass pessary is of service, packing its calibre with narrow strips of iodoform gauze, from time to time, I learned soon to pack thoroughly well the entire uterine cavity with medicated gauze, of late using almost invariably the iodoform gauze. Occasionally, in cases of constant oozing, not controlled by hot water irrigation, employing strips of sterilized gauze

soaked in a solution of liquor per sulphate of iron, a drachm to four or eight ounces of water, is advisable. The strips of gauze should be cut as long as possible, without tying, and should be tried that no weak point of breakage is left. This careful packing gives good, safe drainage, and insures an aseptic condition. This packing can be done without, yet it is best to use the cervical speculum, such as I here show you, with other instruments.

One is pleased, seeing in septic conditions, the thermometer drop from 103 or 104 down to normal, and remain there, the patient going on to perfect recovery. In cases of a nasty septic condition, the packing should be removed at the end of forty-eight hours or sooner. In cases non-septic, it can be left in four or five days—perhaps not to be re-placed then when removed. Where the operation has been done to control the hemorrhage in fibroids and it shows a tendency to continue, it is well to repeat packing every three or four days, for perhaps ten days or two weeks. Frequently one curretting and thorough packing in these cases is sufficient. Yet there are some that will require not only the repeated packing, but a renewal of the curretting in one, two, three, four, six, eight or ten weeks.

In curretting in these cases I wish to be understood that it is to be done more for the purpose of controlling hemorrhage sufficiently to bring your patient into the better condition for a radical operation of entire removal of the tumor.

At the time the uterine cavity is packed, a moderate, careful packing (connected or not with the uterine gauze) of the vagina should be done. It is generally better to have the two pieces of gauze—uterine and vaginal—separate, and the ends so arranged that they can be recognized. It may be necessary soon to remove the vaginal but not the uterine portion.

Let me emphasize here that in septic cases—especially puerperal—where no improvement follows this method of treatment, we must be prepared to do abdominal section, to relieve septic conditions within the pelvic cavity, and, then failing to relieve our patient, we have to face a true case of

septicæmia or sapræmia, and in which the chances are against her, but in the battle we are maintaining let us do all we can from an aseptic, antiseptic, surgical standpoint.

Permit me to say here that in these septic conditions we do wisely in giving germicides internally, such as iodine, carbolic acid, salol and the like. Clean bedding, clean floors, pure air, and the like, must never be lost sight of in these cases.

Let me say a word here regarding cases of abortion, honest or otherwise, in which we are called and find so much trouble in removing the decidua or placenta. Those of us who show the blossoming of age in our hair or beards, and I may say many younger men, will recall a case or cases where the continued hemorrhage, or the knowledge of retained detritis in some form, has given us many anxious hours and sleepless nights. Now we know that we have but to prepare our patient, to employ curretting at once and all will be well. The mighty change made by the still mightier tongue of the public, that the doctor left behind a portion of the after-birth which was the cause of death, no longer holds good. Our conscience is clearer when we have done our full duty, and the sting of the critic is lost in the recovery of our patient.

TROY HOSPITAL NOTES.

SERVICE OF DR. HERRICK.

Compound Fracture of Skull with unusual Symptoms.—

Mrs. T. admitted Nov. 14, '92 with following history. Struck on head with piece of iron weighing twenty pounds or over; walked to station house, several blocks distant, returned home, and again went to station house, in all occupying an hour or more, all the while bleeding profusely, and with no other symptoms of injury. A dressing to check bleeding being applied, she gradually developed aphasia, facial paralysis and hemiplegia *both* on the right side (injury on the left), absence of coma, and could understand all that was said to her. Upon

being admitted was operated upon immediately, and a piece of bone from ant. inf. angle of left parietal, two inches by one-half inch, was extracted with difficulty, it being forced partly through the dura which was badly lacerated. Wound lightly packed, no relief in symptoms, coma supervened and death on the fourth day. Section showed destruction of entire left cerebrum.

Gall Stones Causing Cancer of Gall Bladder.—I. R. aged 50, admitted Nov. 29, '92 with history of protracted jaundice, emaciation, some vomiting, and pain in region of gall bladder. A globular enlargement was distinct in this region, and diagnosed as distended bladder with impaction. Abdomen opened Dec. 2, by usual incision and precautions, when the tumor was found in the midst of a mass of adhesions of long standing, of a nodular character, vascular, and in fact carcinomatous. Incision closed. Death from exhaustion following day. Section revealed the tumor to be the gall bladder adherent to a loop of intestines matted together in an inseparable mass, in the interior of which was an ulcerative cavity containing a 327 grain gall stone. A fistulous opening led to the intestine large enough to admit the little finger.

Severe Internal Injuries with slight External Evidences.—A brakeman admitted Dec. 15, '92 had been run over, across the abdomen, by one truck of a freight car. There was a bruise mark four or five inches broad, extending nearly around the body on a line with the umbilicus. Skin unbroken. On palpation everything apparently normal, complained only of being sore, and legs numb, was almost pulseless yet remained conscious, helped himself considerably, recited clearly his symptoms, history of accident, up to death five hours later. Section showed liver and kidneys ruptured, intestines and mesentery deeply ecchymosed, especially in line of bruise, while from the pelvis was lifted out a piece of ileum eighteen inches long entirely freed from all attachments. A large quantity of blood was in the cavity, and the abdominal muscles completely dissected one from the other, by intervening blood.

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ANNOTATIONS.

Drinking Glass in the Rectum.—M. Marchand, in (*Bull. et mem. de la soc. de chir.*) reports the case of a man who, upon a wager, introduced a glass into the rectum. Great abdominal distention, tenesmus and retention of urine followed. The mouth of the glass presented three-fourths of an inch above the sphincter. All efforts at removal with forceps failing, he was anæsthetized, and an incision made in the median line, posteriorly dividing the sphincter and the posterior rectal wall. Removal of the body was then easily effected. The rectal wall and sphincter were closed with catgut, and soft parts with silk. A sound was placed in the rectum, and constipation enjoined for four days, iodoform packing. Sound removed on eighth day, suture on tenth. Complete restoration of functions followed.

The glass measured seven and one-half inches circumference and three and one-eighth inches deep.

Ice, and Drinking Water.—Ice, unless artificially frozen from distilled or thoroughly filtered water, should not be put into drink; the drink should be put into the ice, with the sides of a bottle or other receptacle between. Of course, if it is practicable to filter the ice-water, that amounts to the same thing. Dr. T. Michell Prudden, who has given probably as much investigation to this subject as any man that ever lived, writes at length of artificial and natural ice, in *Harper's Magazine* for August, and

has this to say of the source from which a large proportion of all natural ice supplies are derived: "Sewage-polluted water is not fit for men to drink, without purification, no matter how fast and far the river runs, or how wide the lake into which the sewage drains. With the size of the lake and the volume of the river increased, the chances of harm decrease, of course, but they stay chances still, where none need to be. New York takes extraordinary pains, or at least spends enormous sums of money, in keeping its sanitary conditions good. And yet this great, wealthy, and seemingly intelligent community goes on year after year polluting its own excellent water with the frozen filth of a great sewage-polluted river (the Hudson.) One may even see citizens of this metropolis, keenly alive to the advantages of cleanliness, and insisting on the use of distilled water at their tables, yet calmly plump into their glasses of pure water the frozen sewage of the upper Hudson from the vicinage of Albany and Troy.

"We know that typhoid fever is nearly always present in Troy and Albany during the ice-harvesting season. We know that the waste from the victims of this disease is cast into the Hudson river. We know that the typhoid germ resists freezing and long-continued cold; and yet between seven and eight hundred thousand tons of ice are cut from the Hudson in average years within twelve miles of Albany, largely for the refreshment of New Yorkers. The householder can have no positive assurance that his supply will not be from the polluted Hudson."—*The Sanitary Era*.

Treatment of the Tympanites in Typhoid Fever.—E. T. Nealey, M. D., in the *University Medical Magazine*, says: I have always considered tympanites as a dangerous element in typhoid fever; for I have seen several patients die apparently from the distention due to the accumulated gases, a condition which I was unable to relieve satisfactorily. The bowels often fill up with alarming rapidity, this being probably the cause of perforation in many cases.

I saw a case in consultation last year, which was undoubtedly intelligently treated. The distention was in the extreme. So far as I was able to determine the case was uncomplicated with perforation, and it seemed as though the man would live if relieved of the accumulation of gas. All of the usual methods had been applied—injections, aspiration and rectal intubation—but with negative results.

A similar case occurred in my own practice during the last year. A boy, nine years of age, during the third week of fever, suddenly developed an alarming tympanites. The abdomen was fearfully distended, lower part of chest wall was widely forced out, stomach collapsed and unable to retain drugs, food or stimulants. Respiration was labored and rapid. This was a case that I had been holding up under heroic doses of stimulants, and without them he began to sink rapidly. I considered the end certain and close, unless relieved of this condition. I tried all of the usual methods without giving the needed relief. I then used the injection which I commonly use in abdominal section; one ounce of salts, two ounces of glycerine, three ounces of warm water and thirty drops of turpentine. In thirty minutes the child began passing liquid stools, accompanied with an immense quantity of gas, with very decided relief of alarming symptoms. The injection was repeated in a few hours for another rapid accumulation of gas, and with the same results. The child made a perfect recovery, although it was one of the worst cases I have ever seen. I have repeatedly used this injection since in milder cases for constipation and accumulation of faeces and gas, and it has seemed to be all that one could desire in its effects.—*The Canada Lancet*.

Coca Erythroxyton.—Few drugs have as interesting and remarkable a history as *Coca erythroxyton*. As a source of cocaine alone it deserves a conspicuous niche in the herbarium temple of fame.

The coca leaf is the great source of comfort and enjoyment to the Peruvian Indian; it is to him what betel is to the Hindu, kava to the South Sea Islander, and tobacco to the rest of mankind; but its use produces invigorating effects which are not possessed by the other stimulants. From the most ancient times the Peruvians have used this beloved leaf, and they still look upon it with a feeling of superstitious veneration. In the time of the Incas it was sacrificed to the sun, the *Huillac Umu* or high-priest chewing the leaf during the ceremony; and before the arrival of the Spaniards it was used in Mexico instead of money.

Coca leaves have received the general recognition in therapeutics which those familiar with their properties have always indicated. Physicians have become convinced by personal observation that the effects attributed to the drug are only what might

naturally be expected from the action of so powerful an alkaloid as that contained in the coca leaves.

There are few cases of neurasthenia in which it will not be found useful. Taken after dinner, it serves often to facilitate digestion, and even confirmed dyspeptics find their distressing symptoms relieved by it. It is of especial value in those cases where exhausting mental labor has led to morbid depression of spirits. There is no remedy like it for a fit of the "blues." It relieves the nervous irritability that follows indulgence in excesses of any kind, restoring the capacity for work and giving renewed energy. It acts as a sort of antidote to the effect of opium, alcohol, tobacco, or coffee, and judiciously used may even enable one to overcome the morbid craving for any of these stimulants when they have been used to excess.

It is said that public speakers and singers have found themselves in better voice after using coca.

As a remedy for nausea and vomiting from reflex causes, particularly the vomiting of pregnancy, the cordial proves extremely efficacious. For this purpose it should be taken a few minutes before eating, and the dose repeated in an hour or two afterwards. Gastralgia is frequently relieved by this remedy, and nervous headaches often disappear under its use.

It is of service also in cases of asthma, as an aphrodisiac, emmenagogue, antiperiodic, in overcoming drunkenness, in nervous exhaustion, and internally and locally for hæmorrhoids. As a restorative of the circulation in cases of enfeebled heart it is invaluable.

We believe Messrs. Parke, Davis & Co. were the first to introduce to physicians of this country this interesting drug, and have made a thorough study of its eligible and therapeutically efficient administration.

New Uses for Sulfonal.—Apart from its uses in simple insomnia and some of the neuroses, sulfonal appears to have been of value in controlling such symptoms as reflex spasm and the uneasiness following traumatic injury. We note (*Medical Record*, July 2, 1892,) that Dr. Edmund Andrews, of Chicago, speaks of sulfonal as a certain remedy in the treatment of muscular cramps of the legs appearing during the night, and especially those accompanying those of the long bones. In a case of recently fractured femur, fifteen grain doses gave immediate relief. In

the after-treatment of laparotomy, Dr. A. F. Jonas (*Omaha Clinic*, August, 1892,) says that the symptoms of sleeplessness occurring in these cases should always be relieved lest insomnia seriously complicate recovery; he usually gave sulfonal in such conditions. Dr. Althous (*Am. Jour. Med. Sci.*) recommends sulfonal for the insomnia liable to occur in the treatment of post-grippal psychoses. Dr. Alexander J. C. Skene has employed sulfonal in the after-treatment of laparotomy. He writes as follows in *Med. Mag.*, March 1882:

"Sulfonal does remarkably well as a sleep-producer, and is much preferable to bromide, chloral, or any combination of such remedies. It produces the desired result in the great majority of cases that are not kept from sleep by severe pain. This remedy is worthy of note as rather new, and is certainly one that will cause sleep with no other perceptible effect, good or bad."

Light in the Sick Room.—Dr. B. W. Richardson, in the course of a lecture on "Disease and how to combat it," remarks: A custom still prevails, despite all our sanitary teachings, that the occupants of a sick room in the private house should be kept at all times in a darkened room. Not one time in ten do we enter a sick room in the daytime to find it blessed with the light of the sun. Almost invariably, before we can get a look at the face of the patient, we are obliged to request that the blinds be drawn up, in order that the rays of a much greater healer than the most able physician can ever hope to be, may be admitted. Too often the compliance with this request reveals a condition of the room which, in the state of darkness, is almost inevitably one of disorder, everywhere; foods, medicine, furniture, bedding misplaced; dust, stray leavings in all directions. In brief, there is nothing so bad as a dark sick room. It is as if the attendants were expecting the death of the patient. And if the reason for it is asked, the answer is as inconsistent as the act. The reason usually offered is that the patient cannot bear the light; as though the light could not be cut off from the patient by a curtain or screen, and as though to darken one part of the room it were necessary to darken the whole of it. The real reason is an old superstitious practice, which once prevailed so intensely that the sick, suffering from the most terrible disease—smallpox, for instance—were shut up in darkness, their beds surrounded with red curtains during the whole of their illness. The red curtains

are now pretty nearly given up, but the darkness is still credited with some mysterious curative virtue. A more injurious practice really could not be maintained than that of darkness in a sick room. It is not only that dirt and disorder are results of darkness—a great remedy is lost. Sunlight is the remedy lost, and the loss is momentous. Sunlight diffused through a room warms and clarifies the air; it has a direct influence on the minute organic poisons—a distinctive influence which is most precious—and it has a cheerful effect on the mind. The sick should never be gloomy, and in the presence of the light the shadows of gloom fly away. Happily, the hospital ward, notwithstanding its many defects—and it has many—is so far favored that it is blessed with the light of the sun whenever the sun shines. In private practice, the same remedy ought to be extended to the patients of the households, and the first words of the physician or surgeon on entering the dark sick room should be the dying words of Goethe: “More light! more light!”—*The Druggist and Chemists' Gazette*.

Cholera Statistics.—ST. PETERSBURG, Dec. 16—Final official statistics of the cholera epidemic in Russia have just been issued. According to these figures there have been 130,417 deaths from European, and 135,343 deaths from Asiatic cholera since the outbreak of the disease in the Empire.

The Resorptive Power of the Stomach in Young Children.—Pfannenstiel (*nordiskt Medicinskt Arkiv*, 1892, Bd. ii., Hef 3) reviews the work of previous observers in estimating the resorptive power of the stomach by the iodide of potassium test of Penzoldt-Faber. All these investigations have been made in the adult, and show that after ingestion into the empty stomach of a healthy man, iodide can be detected in the saliva or urine within seven to fifteen minutes. In certain diseases of the stomach and when the viscus contains relatively large quantities of food, the period of absorption is considerably delayed. This is most pronounced (as late as four hours) in case of cancer of the stomach and of dilatation of this organ; while it is not so considerably or so constant in chronic gastritis.

By a slight modification of the method of Penzoldt-Faber, the author has turned his own investigation to very young children, ranging in age from one month to one year. Two and a half to three hours after an ordinary meal—the breast, or a mixture of

sterilized milk—a solution of about three grains of potassium iodide was administered, and then a regular catheterization of the bladder was carried out every five or ten minutes. In healthy children the drug was detected at the end of fifteen to twenty minutes, and sometimes not till twenty-five minutes, a result which shows that with young children the absorption of iodide of potassium is at least five minutes slower than with adults.

A further study upon fifty children suffering from dyspeptic troubles, more or less grave, showed that the iodide could not be detected until from twenty-five to forty-five minutes after its ingestion. The author therefore concludes that the absorptive power of the mucous membrane of the stomach of young children is a little more feeble than in adults, and that catarrhal alterations also tend to diminish this power.—*The Am. J. Med. Science.*

Warning Against Kissing Animals.—Dangers of a disgusting habit. The disgusting and dangerous fondling and kissing of beasts cannot be effectually opposed, perhaps, on the whole; but some persons may be benefited by the repetition of warnings against the numerous infections which that practice is liable to incur; such as hydatid from dogs, diphtheria from cats and pigeons, and from cats the obstinate and loathsome diseases of ringworm and favus. Dr. Fred J. Levisur, of No. 687 Lexington avenue, suggests this warning in the *Medical Record* from having had occasion repeatedly to trace individual cases, as well as small epidemics, of both ringworm and favus, to their source in the endearment of cats. He gives two recent cases, with particulars, of both cat and child. Favus, he states, is a disease peculiar to mice, from which the cat gets it.—*The Practitioner's Monthly.*

Preserving the Malaria Parasite Alive.—Rosenbach (*Berlin klin Wochenschrift*, No. 35, 1891) calls attention to the fact that the plasmodia which produces malarial fever can be preserved in the living condition in the blood extracted by leeches. In a case of typical tertian ague the author placed a leech over the spleen. It died in forty-eight hours and within it numerous dead plasmodia were found. Two other leeches were applied some hours before the beginning of the attack, one of these was opened in twenty-four hours and found to contain a very large quantity of red blood corpuscles, a large portion of which included living plasmodia and mobile pigment. The other leech

was opened in forty-eight hours. It presented a similar condition. A leech applied twenty-four hours after the treatment with quinine was found to contain a few shrunken organisms. From these facts the author suggests that human blood rendered artificially coagulable by each subtractum might be used for a cultivated medium for malaria parasites.—*The Medical and Surgical Reporter*.

Memorizing Doses.—H. M. McK., Champaign.—From this correspondent we get a request to state in simple form the posology of official preparations. To cover this ground fully would require more space than we care to give the subject at present, but we are pleased to present the following rules with their exceptions as formulated recently by Dr. G. A. Wiggins:

1. The dose of all infusions is 1 to 2 ounces, except infusion of digitalis which is 2 to 4 drachms.
2. All poisonous tinctures 5 to 20 minims, except tincture of aconite, which is 1 to 5.
3. All wines from $\frac{1}{2}$ to 1 fluid drachm, except wine of opium, which is 5 to 15 minims.
4. All poisonous solid extracts you can give $\frac{1}{2}$ grain, except extract of calabar bean, which 1-10 to $\frac{1}{4}$ grain.
5. All dilute acids from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims.
6. All aquæ from 1 to 2 ounces, except aqua laurocerasus and aqua ammonia, which are 10 to 30 minims.
7. All medicated syrups you can give 1 drachm.
8. All mixtures from $\frac{1}{2}$ to 1 fluid ounce.
9. All spirits from $\frac{1}{2}$ to 1 fluid drachm.
10. All essential oils from 1 to 5 minims.—*The Pacific Medical Journal*.

Science and Women.—Professor William James, of Harvard, announces that women develop early and then cease to grow mentally. Professor Crichton Browne, finds that women's brains are smaller than men's, and their frontal lobes less richly supplied with blood. Professor Lomproso finds that women are less sensitive than men, and as regards their receptive and perceptive organs represent an incompletely developed type. Altogether, science is bearing down very hard on the ladies. Yet we do not learn that they are becoming any the less popular. The poet has

said metrically that without them the extremes of life would be without solace and its middle without joy. The testimony of the poet will probably continue to be received by the mass of human kind, even if the greatest cranial circumference of the gentler sex never rises above fifty centimetres.—*Medical and Surgical Reporter*.

The Sterlization of Water.—Dr. V. Babes and Dr. A. Babes, (*Le Mécridi medical*, No. 28, 1792) have presented a paper to the Academie de medecine on the sterlization of water. They refer to the well-known difficulty of obtaining water free from germs. Boiling gives water a dead taste and deprives it of its gas; the different filters, which may succeed in giving pure water when they are surrounded by all the precautions of the laboratory are far from offering all the guarantees desirable when they are employed in the household or when their care is intrusted to the cook. Whatever may be the composition of the filter—porcelain, asbestos, charcoal, etc.—when it is not properly cared for it eventually yields water containing as many microbes as the unfiltered water, or more. They have applied to the problem of the purification of drinking-water the principle of the precipitation of the corpuscular elements in suspension in the water, using many substances, such as alum, iron, etc. Powdered alum mixed in water that is allowed to stand for twenty-four hours in a cool place produces an absolutely pure water that is bacteriological sterile. If one, one and a half, or two decigrammes of alum were added to each litre of water containing 1,200 germs to the cubic centimetre, it becomes clear after twelve hours' standing; and in a long vessel it was found that the number of bacteria to the cubic centimetre varied from fifty at the surface to none a few inches below the surface. The authors had imagined that a mixture of carbonate of calcium and alum would clarify water, but it did not destroy the microbes unless added in such quantities as to render the water alkaline and unfit for use. They ascertained that precipitation by iron facilitated the filtration of water by sand, the layer of oxide of iron retaining a portion of the microbes, but the water filtered by that layer contained fewer microbes, while the filtration by sand it becomes turbid. Therefore the fact that water treated with iron and simply decanted became sterile did away with the necessity of any subsequent filtration, and the later procedure only served to infect it. Profiting by this

discovery, they prepared drinking-water by filtering a slow current (a litre in five minutes) through a column of iron fillings a metre high, The water became clear in a few hours and contained no microbes after eighteen hours. They consider it easy to apply the procedure for domestic or municipal use.—*N. Y. Med. Journal.*

The Coloring of Oranges.—According to *Le Progres medical*, a new industry has sprung up in Paris. It is that of transforming ordinary oranges into blood oranges by injecting into them Biebrich's scarlet, or rocelline, a harmless agent obtained from diazobenzol in solution of B-naphthol.—*N. Y. Medical Journal.*

REVIEWS AND BOOK NOTICES.

The Law of Public Health and Safety, and the Powers and Duties of Boards of Health. By Leroy Parker, vice-dean of the Buffalo Law School, formerly president of the Michigan State Board of Health, and Robert H. Worthington, of the New York Bar. "*Salus populi est suprema lex.*" Albany, N. Y., Matthew Bender, 1892.

To one interested in sanitary work this is one of the most remarkable books published in this country, in all that pertains to public health and safety. Officers of boards of health are frequently in doubt as to their powers, responsibilities and relations to the public. In this work can be found everything that relates to their duties. Just such a work has been needed for a long time. The health officer is often at his wit's end in compelling attendance of witnesses, in proper definition as to what constitutes a nuisance, in the enforcement of general ordinances, how to proceed against a nuisance, serving of notices, judicial interference; these, and many other questions present themselves so frequently that he is often embarrassed by his want of knowledge upon the different subjects brought to his notice.

The following quotation from the introductory is so pertinent that it seems desirable to insert it here: "From the time of Moses to the present day, the necessity of compelling mankind, by law, to observe the rules of health and safety has been recognized by every civilized government. This necessity has found expression in those statutes which have had for their object the prevention of disease, and the result has been that those people

who have most carefully protected themselves by strict legislation, and who have most rigidly enforced the observance of health laws, have enjoyed the greatest immunity from the ravages of plagues and pestilence; while a neglect of proper precautionary measures has usually resulted in periodical decimation of the population by the scourge of communicable disease."

Taking it all in all there is nothing in the whole book but can be thoroughly endorsed. It should be in the hands of every health officer in this state. Few states in the Union are so thorough in looking after the welfare of the people as the State of New York, and this is largely the outgrowth of our very excellent State Board of Health. Local boards of health have been the means of saving the people from invasion of epidemics, and the very thorough manner in which the health officer of the port of New York has succeeded in excluding cholera should be a source of congratulation to every citizen.

The book is a marvel of the printer's art. It is perfect in every respect, and the publisher is to be congratulated upon the work he has been able to accomplish so well.—A. V.

Leonard's Physician's Pocket Day-Book. Bound in red morrocco, with flap, pocket, pencil loop and red edges. Price, postpaid, \$1.00. Published by *The Illustrated Medical Journal Co.*, Detroit, Mich.

This popular day-book is now in its fifteenth year of publication. The front part of it is occupied with dose tables, and other useful pocket memoranda. It is good for thirteen months, from the first of any month that it may be begun, and accommodates daily charges for fifty patients, besides having cash department, and complete obstetric records. There are also columns for the diagnosis of disease, or for brief record of the treatment adopted, following each name space. Name of patient needs to be written but three times in a month. The book is seven and one-half inches in length, and is three and one-half inches wide, so that it will carry bill-heads or currency bills without folding. It is bound in flexible covers, and weighs but five ounces, so that it is easily carried in the pocket.

The U. S. Pharmacopocia "1890," which will be published during 1893, adopts in great measure the Metric system of weights and measures; this will doubtless create much confusion in the minds of physicians and druggists, and lead to many mis-

understandings and errors. In order to provide a guide to the proper dosage, etc., Dr. George M. Gould, Author of *The New Medical Dictionary*, has prepared a very complete table of the official and unofficial drugs, with doses in both the Metric and English systems; this table is to be published in P. Blackiston, Son & Co.'s Physicians' Visiting List, for 1893, together with a short description of the Metric system.

A Practical Treatise on Diseases of the Skin. By John V. Shoemaker, A. M. M. D., professor of skin and venereal disease in the Medico-Chirurgical College and Hospital of Philadelphia, physician to the Philadelphia Hospital for diseases of the skin, member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, of the American Academy of Medicine, and of the British Medical Association, fellow of the Medical Society of London.

Second edition, revised and enlarged with chromogravure plates and other illustrations. D. Appleton & Co., New York, 1892.

A knowledge of the fact, that before one can intelligently treat any particular organ of the body, one must be thoroughly conversant with its minute structure and actions, has led the author to devote a considerable space to the anatomy, physiology and pathology of the skin. He has also discussed in detail the general subjects of symptomology, etiology, diagnosis and treatment; and has given a critical consideration of the more important drugs useful in skin diseases.

Since the first edition was published, four years ago, many new facts and some theories regarding the action of bacilli in causing disease have been brought to light, this information has been critically examined and compared, and an impartial review of it given under the appropriate diseases. The author does not always express his own views on the subject, but presents both sides leaving the reader to form his own opinion. The diagnostic and curative relationship of tuberculin to lupus vulgaris is carefully considered. In the author's opinion, as a mode of treatment it is inferior to some of the older methods, and is not without danger

At the end of the book there is a very extensive formulary alphabetically arranged according to diseases.

The main part of the work is carefully and clearly written, and the chromogravures are excellent, though the wood cuts are few and not very good. As a text-book it should have a wide circulation.

It is well printed and neatly bound.—H. V. R.

PAMPHLETS RECEIVED.

An Experimental Inquiry Concerning Elastic Constriction as a Hæmostatic Measure. By Nicholas Senn, M. D., Ph. D.

An Operation for the Radical Cure of Stricture of the Lachrymal Duct, with Description of a Stricturotome. By Charles Hermon Thomas, M. D.

Anæmia. Its Treatment by a New Preparation of Iron. By Reynold W. Wilcox, M. D.

Gastrostomy in Carcinoma of the Cardiac Orifice. By Emory Lanphear, M. D.

Sexual Hypochondriasis and Perversion of the Genesic Instinct. By Irving C. Rosse, A. M., M. F. R. G. S.

I. Abces du Larynx Dans La Scarlatine, II. Un Nouveau Gas de Chancre Indure De La Fosse Nasale. By Dr. E. J. Moure.

Mechanical Support in Fracture and Dislocation of the Sixth Cervical Vertebra. By H. Augustus Wilson, M. D.

At What Age Should the First Treatment of Congenital Club-Foot be Instituted. By H. Augustus Wilson, M. D.

Addresses, Papers and Discussions in the Section of Obstetrics and Diseases of Women, at the Forty-Third Annual Meeting of the American Medical Association.

Hystero-Epilepsy, with Report of Cases. By A. Vander Veer, M. D.

Some Considerations in Reference to Uterine Hemorrhage, Puerperal and Non-Puerperal. By A. Vander Veer, M. D.

LITERARY NOTE.

The Messrs. Macmillan & Co., announce that the recently completed edition of Foster's Text-Book of Physiology in four parts is to be supplemented by the issue of an appendix on "The Chemical Basis of the Animal Body," by A. Theridan Lee, Sc. D., F. R. S. Dr. Lea is Lecturer on Physiology to the University at Cambridge, England.

AN AMERICAN TEXT-BOOK OF THE MEDICAL AND SURGICAL DISEASES OF CHILDREN. In preparation. For sale by subscription only.

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Syphilis of the Larynx.*

BY ARTHUR G. ROOT, M. D.

DEFINITION: The Manifestations of Constitutional Syphilis as Presented in the Larynx; the so-called secondary, Tertiary or Hereditary Phenomona in Giving Rise to Dysphonia or Aphoria.

Etiology.—The exact causes which predispose the larynx to an acute attack of syphilis are not well known. In many cases, the disease is attracted to that part by reason of local weakness either acquired or hereditary. It has been noticed that the season of the year has a marked influence in causing the outbreak to take place in the mucus membrane lining the larynx, particularly in its early stages. Mackenzie noticed out of 118 cases of secondary syphilis, 79 cases between September 1st and March 31st, and 37 between April 1st and August 31, whilst out of 110 cases of tertiary syphilis, 66 commenced in the six winter months and 44 in the summer months. Statistics showing the frequency with which syphilis affects the larynx as compared with other parts of the body, may prove of some interest. One author has shown us that out of 218 cases of syphilis in the dead subject, in 15.1% the larynx was affected. while in 10.1% there was diseases of the pharynx and, the nose was implicated in 2.8%. Different results, however have been noticed by other observers. Engelsted found out of 521 cases that the larynx was affected only 25 times. Lewis

*Read before the Medical Society of the County of Albany, Dec. 14, 1892.

diagnosticated laryngeal affection in 44 cases out of 1,000 syphilitic patients. Mackenzie's observations, based upon 10,000 consecutive cases of throat disease, examined in the Throat Hospital, (Golden Square), show us that 308 cases of laryngeal syphilis were diagnosticated and 834 in which the pharynx was affected.

Laryngeal syphilis may be said to occur between the ages of 20 and 40. Again, as to the variety most usually found in the larynx, it is ascertained that tertiary syphilis or the tertiary phenomena are by far the most frequent, the proportion being 18 to 11.

Symptoms:—The phenomena of syphilis as exhibited in the larynx are of great variety, differing widely in the various stages, from the mildest to the most severe. The patient may notice nothing more marked than a slight inclination to clear the throat. Upon the other hand, extreme dysphonia may be present, often times sufficiently marked to require tracheotomy. In the earlier stages, cough may be present, but in the latter stages it is rare. During the commencement of the attack slight hoarseness may be noticed which may ultimately pass into a complete aphonia. Slight difficulty in swallowing is sometimes experienced later on this act becoming almost impossible. A marked characteristic is the pain noticed on attempting to swallow, with the complete absence of such pain between such attempts.

The pathological effects of laryngeal syphilis are manifold, comprising every kind of lesion, from the mere erythematous blush of the mucus membrane to great thickening, destructive ulceration, perichondritis and often complete necroses of the laryngeal cartilages.

The most characteristic condition of secondary syphilis as exhibited in the larynx, is condylomata, a superficial ulceration. Superficial ulcerations of limited extent when met with generally occur from six to twelve months after the primary infection and after a few weeks of treatment, heal. Obstinate congestion of the laryngeal mucus membrane is sometimes met with but in many cases it is impossible to tell why this

condition is really due to the syphilitic dyscrasia. Mackenzie found marked congestion in 51 out of 118 cases of secondary syphilis. In each of these 51 cases there was also very well marked signs of constitutional syphilis. In 24 of these cases condylomata was observed in the pharynx. Congestion of the mucus membrane in itself is not characteristic and at present there is but little to enable us to distinguish between a congestion due to syphilis and that arising from other causes, unless we have present very well marked signs of syphilitic infection. Mackenzie goes so far as to say, that he never considers a congestion syphilitic unless there are other well marked evidences of that disease. In tertiary syphilis, the usual phenomena met with are ulcerations, gummata and cicatricial stenosis. Probably the earliest manifestation is an obstinate *superficial* ulceration, accompanied by more or less hyperaemia of the mucus membrane. Dr. Whistler has described this condition under the name of Relapsing-Ulcerative Laryngitis. If such ulcers occur within a year of the primary infection, it is usually safe to classify them under the head of secondary syphilis, but if they appear three or four years after primary infection it would seem reasonable to regard them as tertiary. The most characteristic condition of the later stages of laryngeal syphilis is undoubtedly *deep* and destructive ulceration. Such ulcers may form three or four years after inoculation, but however, they may not appear until 20, 30, 40 and even 50 years after the date of infection. They produce great loss of substance, consequently the form of the epiglottis and the other parts of the larynx, is much changed. No region of the larynx is exempt, but the epiglottis is the part most frequently implicated. The upper surface is more often attacked than the under surface. These circumstances give rise to great (difficulty in swallowing) dysphagia. After the healing of these ulcers, swallowing is never-the-less possible, usually without much difficulty, even though a large portion of the epiglottis be destroyed. If the pharyngeal walls be also ulcerated, the edges of the epiglottis may unite, which condition usually gives rise to a serious (difficulty of speech) dysphonia. The

ulcerative processes may destroy the mucus and sub-mucus tissues and may even attack the muscles of the perichondrium and cartilage. Oedema is also associated with such ulcerative processes and may be followed by the formation of false excrescences, which are most apt to occur in the inter-arytenoid fold and the anterior surfact of the posterior wall of the larynx. In the advanced stages, gummata are occasionally formed in the sub-mucus tissues and muscles of the larynx. Such deposits appear as smooth, round elevations, their color being the same as the rest of the mucus membrane, but sometimes possessing a peculiar yellow tint. The most frequent site for such gummatis deposit is the anterior surface of the posterior wall of the larynx and they are generally found in groups. When the gamma breaks down and begins to ulcerate, the destruction which results is of the deepest and most dangerous character, often penetrating to the perichondrium, though such ulcerative processes be arrested, the danger does not cease. The cicatrices which are subsequently formed, undergo such a degree of contraction as to greatly lessen the calibre of the larynx. Thus we have many times a stenosis which is of great danger to the patient. Such stenosis is sometimes caused by a web of tissue between the vocal chords. Dr. Elsbury of New York, reports six cases of such cicatrition of laryngeal syphilis. Complete aphonia is usually present in such cases. The vocal chords are sometimes permanently fixed in the median line, at the side of the larynx or in some other position, by reason of ankylosis of the crico-arytenoid articulation. Heridatary syphilis is sometimes met with in children, though Mackenzie says he has never seen a case in a child younger than seven years. There is usually ulceration of the edge of the epiglottis with exposure of the cartilage.

Pathology:—Virchow has investigated the anatomical changes which are attendant upon syphilitic infection and he describes them with considerable detail. Hyperplasia of the epithelium of the mucus membrane, attended with large proliferation, results from the formation of condylomata. Such deposits show little disposition to ulceration except of

the most superficial character and generally disappear by the process of molecular absorption. Gummata develop in the same way as in other parts of the body, but are of comparatively rare occurrence.

Diagnosis:—Syphilis as existing in the larynx can generally be recognized with a fair amount of ease either by the general features of the case or by the laryngoscopic appearances. If no other symptoms be present, it is quite impossible to tell whether a congestion of the mucus membrane is a simple catarrhal phenomenon, dependant upon syphilis or the forerunner of phthisis. In regard to superficial ulcerations which appear early in the case, the physician may be somewhat in doubt as to whether they are of catarrhal or syphilitic nature. The only affections with which the ulcers of tertiary syphilis may be confounded are cancer and phthisis. The ulcer, if it be syphilitic, is extremely acute in its formation. Probably an irregular swelling of a decided inflammatory, often oedematous character, will be present. If the epiglottis be affected, its *upper* surface is the most likely portion to first succumb. Again, a very important element to be borne in mind is that the syphilitic ulcer is most frequently solitary and is therefore generally unilateral. It is of exceedingly rare occurrence to observe more than two separate ulcers. The ulcers themselves are irregularly rounded, or of oval shape and rather deep. The ulcers of phthisis are of slow development, covering several months and generally preceded by swelling of the mucus membrane of a uniform character, somewhat oedematous in appearance and extremely pale. This pallor is a characteristic. Unlike syphilis, if the epiglottis be affected by the phthisical process it is the *under* surface which most usually suffers and not the upper. The ulcers are bi-lateral and numerous. They are round and much smaller. If syphilis and phthisis be present at the same time in one individual, the diagnosis becomes more difficult. In cancer the development of the ulcer as regards time, would occupy an intermediate space between syphilis and phthisis, covering some weeks. Such ulcer will be preceded by a growth or nodula excres-

cences behind or near the ulcer, mucus membrane acutely inflamed, the ulcers are of irregular shape, generally solitary and of considerable size; experienced laryngologists are usually able to arrive at a reasonably positive diagnosis at once. But, if any doubt remains as to the exact nature of the conditions present, such doubts will be cleared up by watching carefully the results of treatment. Syphilitic affections yield rapidly to appropriate treatment.

Prognosis:—There are a few cases of syphilis in which the prognosis, at least as regards life, can be said to be unfavorable. But under appropriate treatment, the destructive ulcers can generally be arrested, notwithstanding however, there will be a considerable loss of substance and more or less local deformity. Stenoses, may occur and if so, the patient's life may be saved by tracheotomy. If great ulceration of the vocal chords occurs or necroses of the cartilages has taken place, the voice will probably be irretrievably lost. The most unfavorable cases are those in which there has been perichondritis of the cricoid and thyroid cartilages. A fatal issue may follow such cases from destructive suppuration or acute oedema.

Treatment:—The inhalation of atomized solution of bi-chloride of mercury 1 to 500 or 1 to 1000, has received considerable support from Schnitzler, Waldenbury and others, and there can be but little doubt of its efficacy. Severe cases of oedema generally yield to iodide of potassium. Sometimes, however, dyspnoea becomes so great that scarification may be required and tracheotomy may also become necessary. In cases where a web is formed in the larynx it may sometimes be successfully operated upon, and Dr. Whistler has originated a cutting dialator by which such a web may be removed. It depends, however, upon the density of the web. If it be thin, but little trouble will be experienced but if the membrane be tough and thick, such treatment may utterly fail and we may be compelled to resort to thyrotomy. General constitutionally treatment should be pursued vigorously in every case. The introduction into the larynx, particularly in secondary syphilis of volatilized calomel, sometimes yields marvelous results.

Such local treatment requires considerable dexterity and specially arranged apparatus.

Uterus Duplex Separatus.*

BY WM. L. SCHUTTER.

Mrs. F. V., age twenty-six, American by birth: first menstruated at the 15th year; had dysmenorrhoea after 17th year. On July 25, 1892, I was called upon to deliver her in her first confinement. Upon examination I found the os situated to the left side fully dilated and head presenting at the superior strait. After an interval of one hour I again examined the parts and to my surprise found just within the labia minoris a thick septum composed of mucous membrane and connective tissue which divided the vagina into two lateral halves. Upon further examination I found on the right side a virgin os, soft and patulous, in which I could introduce the tip of the index finger about one inch. At this time I could not determine whether I had discovered a uterus bilocularis or duplex seperatus, so had to await the result of future examination. On turning my attention to the pregnant uterus I found that labor had not progressed very far, the head being still engaged at the superior strait, and as my patient had been in labor some ten or twelve hours, I determined to apply the forceps, which after three or four failures I finally accomplished and delivered her of a six pound baby boy. The delivery was long and protracted, due to the obstruction offered by the vaginal septum. Some four months later, November 27, 1892, assisted by Dr. W. O. Stillman, a general examination of the parts was made. Upon digital examination the vaginal septum was found intact, with exception of the lower third which was torn during the delivery. The left vagina was somewhat larger than the right and both os uteri were clearly defined. A speculum examination revealed on the left side a cervix partially lacerated and irregular in outline, having the appearance of one that had borne children; on the right side we found a cervix conical in shape

*Read before the Medical Society of the County of Albany, Dec. 14, 1892.

and possessing all of the characteristics of a nulliparous os. The left uterus measured $3\frac{1}{2}$ inches in depth, and the right uterus $2\frac{1}{2}$ inches in depth. After the introduction of the sounds in the uterine cavities for the purpose of measurement, we attempted to feel the opposing points of the instruments but could not; however, by raising first one and then the other, and then raising the two simultaneously, we could plainly detect the two uterine bodies through the abdominal wall. By crossing the sounds and diverging the handles some four inches, we found we could displace the uterine bodies from their relative positions, thus proving to us the fact that instead of a uterus bilocularis we had a uterus duplex separatus. There is one other point I wish to state in reference to the above case; the patient did not menstruate from the right uterus during her pregnancy. Three months after birth, of child the menstruation reappeared.

THE PATHOLOGY OF APPENDICITIS.*

By A. VANDER VEER, M. D.

The subject assigned me in the discussion for this evening is by no means an easy one to handle in the time allotted. There are very few parts of surgical pathology that have undergone such a decided change within the past ten years as that of the pathology of the vermiform appendix. The change is due largely to the vast amount of work that has been bestowed, largely in this country, by such men as the late Dr. Sands, Dr. Fitz, of Boston, Dr. Robert F. Weir of New York city and others. Treves of London has also done much to elucidate and make much clearer the pathology of the appendix. I believe it is the pretty general concensus of opinion now by all abdominal surgeons that the old classification of typhilitis, perityphilitis, etc., did not convey the true pathological conditions that are not infrequently met with in the right iliac region, and immediately in the vicinity of the appendix and caecum. The old controversy as between

*Read before the Medical Society of the County of Albany.

extraperitoneal and intraperitoneal abscess, as originating from behind the caecum or from the appendix, has been pretty well exploded, particularly so far as the origin from the appendix, classified at first as extraperitoneal. In the study of the pathology of the appendix the anatomy pertaining to this organ should not be lost sight of. It should be remembered that there is a very great difference regarding the position and length of this anatomical structure. There can be no question but that Fitz's investigations have given us a better knowledge of the true condition of the appendix than any other line of study that has presented results to the profession. From my own study, observation, investigation and the results of operations, I would look upon the conditions that are present in appendicitis somewhat as follows:—Catarrhal appendicitis, suppurative appendicitis, ulcerative or perforating appendicitis. Catarrhal appendicitis is, in my mind, that form which is met with most frequently and not especially the result of any foreign body resting in the appendix or even due to fecal concretions, but, with other symptoms, entering into the appendix, some irritant from the caecum, some pressure that is brought about by an over-loaded condition of the caecum, or some traumatism, coming in some way, that gives a degree of inflammatory action that is at times quite serious, quite pronounced. The patient will have the usual pain in this locality, increased on pressure; he will have more or less disturbance of the bowels, there will be some constipation exhibited, as to increase pulse rate and temperature. The administration of a prompt laxative, a large rectal injection, local applications of heat or cold, or of a counter-irritant like that of a blister, places the patient in a condition of rapid recovery. Of this class of cases every practitioner sees not a few, but these same cases may grow more dangerous. These are the cases that give such a favorable percentage in the medical treatment of the appendicitis. At times the irritation that is within the appendix produced a more prolonged inflammatory condition, the patient may still recover, but the appendix is left somewhat strictured at

points, a stenosis is present, another attack presents and now suppuration takes place. It may be confined to the appendix, which will become enormously distended. If the appendix is long and dips down into the pelvis, or if it is curled around itself and reaches back underneath the mesentery of the caecum or if it becomes attached by inflammatory processes to some portion of the smaller intestines or mesenteric attachment, the case grows more serious. An abscess may result, is held by the new adhesions and kept entirely within the peritoneum. These are the cases which present with more prolonged attacks, in which there is the marked constipation and obstruction of the bowels, in which a tumor can be defined for a certain number of days; the patient giving many evidences of pus collection and which if not relieved are likely to produce serious symptoms within a few hours, soon producing a condition of beginning septic peritonitis. Now on the other hand this same inflammatory condition within the appendix may be produced in a somewhat different manner; the appendix may be very short, it drops down in the lower portion of the inguinal region, attaches itself to the inferior and lateral portions of the peritoneum, the appendix becomes adherent, suppuration occurs, but in the attachment that forms pus passes out from the peritoneal cavity, finds its way up between the layers of connective tissues and then we have the abscess that used to be called the extra-Peritoneal abscess, which has been treated so successfully in many instances by an early incision, called in this country the Parker incision, in England the Hancock incision, made parallel with Poupart's ligament. I have done a number of these operations, washing out the cavity, introducing a drainage tube, and these cases recover uniformly, if taken at an early enough stage. The pus cavity is really outside of the peritoneum. In some cases undoubtedly the appendix sloughs, but is still within the abscess cavity and extraperitoneal. The other class of cases, viz: ulcerative and perforative appendicitis are by far the most dangerous. Unquestionable with the majority of these cases an obstruction has already formed within the

appendix or a foreign body finds its way within its calibre. The patient gives but slight evidence of the approach of the terrible sickness that is upon him. There is a slight pain and discomfort, some constipation, a tendency to traction upwards of the right leg, some pain on pressure, which may be continued for from thirty-six to seventy-two hours. The physician is scarcely aware of the serious condition that is present, he is suspicious but does not make a complete and positive diagnosis, when there comes, as it were an explosion of symptoms in which the patient complains of great pain, passes into a condition of collapse, from which he does not recover, and dies within this period of one, two, three or four days from the onset of the symptoms. The autopsy reveals a perforated appendix; there may some, but in many instances no pus is to be discovered. Fecal concretion or some substance is found just passing out from the ulcerated appendix, or possibly has escaped and is lying loose in the peritoneum. Nature has had no time to build a barrier up, by means of adhesive inflammation, and the appendix is found lying loose. It may be of the usual anatomical structure, long, short, or either swollen, full or enlarged or of its normal size as to calibre, etc. These are by far the most serious and dangerous cases we have to deal with. So little time is afforded, so little opportunity given for the recognition of the dangerous symptoms that are present. There can be no question but that physicians are becoming more alert in reference to these cases of appendicitis, and yet there are few lesions in which so many errors of diagnosis appear. Cases have been mistaken for hernia, for pelvic abscess, inflammation of the ovary, abscess of the broad ligament and many other conditions we might mention.

Regarding the diagnosis I would like to emphasize one point, and that is I am favorably impressed with the test called the McBurney Point. I believe it is of service in making the diagnosis of these cases.

The symptoms associated with the appendicitis are not always easily recognized or classified. I believe that they

present with a greater degree of seriousness in patients who are, as regards their physical and mental condition, below par, and that it is in these cases we are more likely to have an abscess. With any case in robust health catarrhal appendicitis is likely to present a large percentage of recoveries, still in these same classes of athletes, as we may call them, come the very dangerous cases of sudden perforative appendicitis. Whenever a patient complains of abdominal trouble, be his symptoms ever so indefinite, I have learned to make it a point to give his abdomen a careful and thorough external examination, and repeat it if necessary in twelve or twenty-four hours, in this manner being able to make a comparatively early diagnosis, but much patience, careful questioning and careful classification of symptoms is called for.

PROVISIONAL PROGRAMME

OF

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Eighty-Seventh Annual Meeting.

The Annual Meeting will be held in the City Hall, at Albany, Tuesday, Wednesday and Thursday, February 7, 8 and 9, commencing at 9:15 A. M. on Tuesday and ending at 1 P. M. on Thursday. You are invited to attend it.

LEWIS S. PILCHER, Brooklyn, *President*. F. C. CURTIS, Albany, *Secretary*.

Provisional Programme.

TUESDAY, FEBRUARY 7, 1893.

Morning Session.

9:15.

Call to order: President's inaugural address; Executive Business.

10:30.

Scientific business. Landon Carter Gray, M. D., New York. The relation, in the Male and Female, of Genital Disease to Mental and Nervous Affections.

11:00.

Special order for the morning: Topic—Epilepsy. 1. The Epileptic Interval; Its Phenomena and their Importance as a Guide to Treatment. William Browning, M. D., Brooklyn. 2. Reflex Disturbances in the Causation of Epilepsy. William C. Krauss, M. D. Buffalo. 3. Mental Epilepsy, J. Montgomery Mosher, M. D., St. Lawrence State Hospital for the Insane, Ogdensburg. 4. The Development of Epilepsy after Traumatic Injury to the Skull. B. Sachs, M. D., New York.

12:45.

Adjournment.

AFTERNOON SESSION.

2:15.

Call to order. Executive business.

2:45.

Scientific business. R. C. M. Page, M. D., New York. The Treatment of Uraemic Convulsions. J. L. Kortright, M. D., Brooklyn. The Registration of Midwives.

3:30.

Special order for the afternoon. Topic.—The Relative value of certain Obstetrical Operations. 1. General Review of the operation to be discussed, by Dr. Egbert H. Grandin, of New York, 2. The Limitations of Embryotomy, by Dr. J. Clifton Edgar, New York. 3. The Limitations of the Cesarean Section, by Dr. Robert A. Murray, New York. 4. The Anatomical Limitations of Symphysiotomy, by Dr. J. E. Kelly, New York. 5. The Clinical Limitations of Symphysiotomy, by Dr. Chas. Jewett, Brooklyn. General discussion, to be participated in by Drs. E. P. Davis, Philadelphia; H. A. Kelly, Baltimore; H. C. Coe, New York; Reynolds, Boston.

6:00.

Adjournment.

EVENING SESSION.

7:45.

Howard A. Kelly, M. D., Baltimore. Practical Antisepsis

and Asepsis, with stereopticon demonstrations (by invitation).
9:00.

Joseph H. Hunt, M. D., Brooklyn. Epitaphs from the Tombstones of Medical History, with stereopticon projections of many old and rare medical portraits.

WEDNESDAY, FEBRUARY 8, 1893.

MORNING SESSION.

9:15.

Call to order. Executive business.

9:30.

Scientific business. Topic.—The management of Suppuration Complicating Tuberculous Disease of the Bones and Joints. Papers by Drs. V. P. Gibney, of New York; Roswell Park, of Buffalo; Henry Ling Taylor, of New York; and Louis A. Weigel, of Rochester.

10:30.

Special order for the morning. Topic.—The Present State of Knowledge as to Carcinoma. 1. The Pathology of Carcinoma, H. C. Coe, M. D., New York. 2. The Etiology of Carcinoma, Roswell Park, M. D., Buffalo. 3. The value of Internal Medication in the Treatment of Carcinoma, Jarvis S. Wight, M. D., Brooklyn. 4. The Results Obtainable from the use of Aniline Products in Carcinoma. Willy Meyer, M. D., New York. 5. Caustics in the Treatment of Carcinoma, Daniel Lewis, M. D., New York. 6. The Knife in the Treatment of Carcinoma, N. Jacobson, M. D., Syracuse. Discussion to be opened by Dr. George R. Fowler of Brooklyn.

12:45.

Adjournment.

AFTERNOON SESSION.

2:15.

Call to order for executive business.

2:30.

Scientific business. Herman Mynter, M. D., Buffalo. Tuberculous Epididymitis.

3:00.

Special order for the afternoon. Topic. — Newer methods of Diagnosis and Treatment of the Stomach and Intestinal Diseases. 1. The Practical Value of the Newer Methods of Examination in the Diseases of the Stomach, with a consideration of the Indications given for Diet and Treatment by such Examinations, by Henry L. Elsner, M. D., Syracuse. 2. The Methods of Obtaining and Examining the Stomach Contents in Disease for purposes of Diagnosis, by J. Fuhs, M. D., Brooklyn. 3. The Disturbances of the Motor Function of the Stomach: Their Diagnosis, Symptoms and Treatment, by C. G. Stockton, M. D., Buffalo. 4. The Physiological Effects of Electricity in the Stomach, the Indications for its Administration and Use in Gastric Disease, and the Methods of Using the same, by Max. Einhorn, M. D., New York.

EVENING SESSION.

8:00.

Anniversary Address by the President in the Senate chamber. Topic.—The Evolution of the American Surgeon.

9:30.

Annual dinner of the society at the Delevan house.

THURSDAY, FEBRUARY 9, 1893.

MORNING SESSION.

9:15.

Call to order. Executive business.

9:30.

Scientific business. J. S. Cooley, M. D., Glen Cove. Report of a Case of Severe Abdominal Injury Terminating in Recovery. Alex. Dallas, M. D., New York; The Treatment of Inguinal Hernia. Andrew F. Currier, M. D., New York; Certain Types of Septicaemia Resulting from Abortion. Wm. W. Potter, M. D., Buffalo; Puerperal Sepsis, its Prevention and Cure. W. Franklin Chappell, M. D., New York; Hoarseness. Nelson G. Richmond, M. D., Fredonia; The Diagnosis and Nomenclature of Fevers. Wm. F. Mitten-

dorf, M. D., New York; Congenital Opacities of the Lens. W. Freudenthal, M. D., New York; Is Stoerk's Blenorhoe and Laryngitis Sicca one and the same Disease.

The committee on credentials will meet at the Delevan House, Monday evening, when members and delegates can register. The committee consists of Dr. Walter B. Chase, of Brooklyn; Dr. Charles M. Culver, of Albany; and Dr. J. P. Creveling, of Auburn. Communications regarding papers should be addressed to the business committee: Dr. Seneca D. Powell, 12 W. 40th St., New York; Dr. William Maddren, 1 Hanson Pl., Brooklyn; Dr. John O. Roe, 28 W. Chester St., Rochester.

Officers and Committees:

President, Lewis S. Pilcher, Brooklyn.

Vice-president, Henry L. Elsner, Syracuse.

Secretary, F. C. Curtis, Albany.

Treasurer, C. H. Porter, Albany.

Committee of Arrangements.—Herman Bendell, Albany; Seneca D. Powell, New York; W. J. Nellis, Albany.

Committee on By-laws.—H. D. Wey, Elmira; A. R. Simons, Utica; F. C. Curtis, Albany.

Committee on Hygiene.—Lawrence Johnson, New York; E. F. Brush, Mt. Vernon, A. N. Bell, Brooklyn; D. S. Burr, Binghamton; Lewis Balch, Albany; W. J. Herriman, Rochester; O. W. Peck, Oneonta.

Committee on Legislation.—D. B. St. John Roosa, New York; Daniel Lewis, New York; Maurice J. Lewi, New York.

Committee on Medical Ethics.—A. Jacobi, New York; A. Ross Matheson, Brooklyn; James G. Glass, Utica.

Committee on Prize Essays.—George Henry Fox, New York; William Warren Potter, Buffalo; John O. Roe, Rochester.

Committee of Publication.—F. C. Curtis, Albany; Wm. Warren Potter, Buffalo; F. D. Bailey, Brooklyn; Charles H. Porter, Albany.

Tax on Quacks.—The recent suggestion of the Secretary of Treasury that the tax on alcohol be increased fifty cents per gallon in order to raise more money for the increasing expenses of the government seems to have met with a favorable response in some quarters, and the question of tariff and taxation will no doubt be considerably discussed by Congress in the near future.

In this connection the wisdom of putting a heavy and permanent tax on all forms of nostrums and quackery will at once commend itself to all wise legislators who are working for the public good. A stamp tax of this kind, say twenty-five per cent., on every form of secret or proprietary medicinal preparation of any kind, whether sold by the retailer, proprietor, manufacturer, or by advertising quack specialists, would be no hardship to the public, as it would in no wise affect the retail price of these articles. All such manufacturers could easily afford to give the Government twenty-five per cent. of the retail price and still have a very handsome profit left, as their net profit is rarely less than five hundred per cent., and often very much more.

Legitimate preparations of the Pharmacopœia and other standard preparations where the complete working formula is public property should be exempt. But as the success of quackery depends on secrecy and mystery, and as these two conditions enable unscrupulous persons to get a dollar for a few cents' worth of a simple remedy, it will be seen that there would be no injustice to any one if a good fair tax were put on the business.

If the Government still went further and required all nostrum and secret medicine manufacturers to pay a big license, and place on record open to public inspection a sworn statement of the exact composition, together with a complete working formula of each preparation, much good would result. And if, like insurance companies, they were also required to furnish heavy bonds or make a special deposit, which could be forfeited under proper restrictions, provided their medicine did not do all that was claimed for it, the public would be still better protected both in health and pocket, and no

injustice would be done to the honest manufacturer of articles of real merit.

There is no good reason why the Government should not place the nostrum business on the same basis in its Internal Revenue Department as the manufacturer of whiskey and tobacco. Analyses of these preparations should be made from time to time, and heavy penalties imposed if they vary from the sworn formula on record, or if any dangerous drug like morphine is being used.

England, which is said to be a free trade country, taxes the nostrum business heavily, and derives a large and growing revenue from that source.—*N. Y. Medical Times.*

AN OPEN LETTER.

(FROM CHARLES MERCHAND, Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures, de Paris," (France,) to PROF. A. JACOBI, M. D., of New York.)

(Published by the *Archives of Pediatrics*, January, 1893.)

My attention has been called to an article read before the "American Pediatric Society," at Boston, May 4, 1892, by Professor A. Jacobi, M. D., and published in the December number of *The Archives of Pediatrics*,. This article is entitled, "Note on Peroxide of Hydrogen," and purports to be a "warning."

The learned writer at the beginning enters into a diatribe regarding proprietary medicines of all kinds, and endeavors, by an extravagant list of diseases, (many of which have never been mentioned by me as being connected with the subject,) to convey the impression that, peroxide of hydrogen (medicinal) is a "nostrum," and that the manufacturer of this article is to be classed among "quacks and patent medicine vendors."

He then commiserates the "immense number of unsophisticated medical men all over the country for their relative inability" to successfully "cope with the misery surrounding them," and intimates that the "thrash" written regarding peroxide of hydrogen (medicinal) is not published for his hearers, who, being writers and teachers, are above the common horde of medical practitioners; with this compliment to

his hearers and most uncomplimentary reference to an "immense number" of his professional brethren, Dr. Jacobi proceeds to mention several cases of diphtheria, which having been apparently greatly relieved by the use of peroxide of hydrogen (medicinal), finally were cured under the use of lime water, as a spray and wash.

The inference drawn by the writer of the article in question is, that the peroxide was an "irritant" and had been of more harm than good.

It is not my province as a chemist to enter into a medical discussion with the learned doctor, but I would like to ask if, in his opinion, a case of diphtheria can be treated successfully with lime water only, and whether in the cases he cites, it is not possible that the peroxide treatment was an important element in the recovery of these patients. I would also inquire whether the intemperate and in some instances personal allusions to myself and the preparation which I manufacture, are in all respects the outcome of professional investigation, and not the result of a desire to advertise himself by discrediting a remedy of which the therapeutic value has been proved by thousands of physicians who, though they may be "unsophisticated" from Dr. Jacobi's standpoint, are nevertheless known as eminent and honored professional men, all over the world.

The drift of this article is seemingly an attempt to prove that Marchand's peroxide of hydrogen (medicinal) is injurious.

In confutation of this, I append herewith, in as concise a manner as possible, the experience of a few prominent physicians whose statements may be taken as conclusive in the sense that they are learned and talented professional men, the equals if not the superiors of the writer who challenges their experience, after having undoubtedly read their opinions, for every word I quote here has been published, and forms a prominent part of the medical literature of the day.

In confirmation of my sincere belief that the claims made by me of the harmless character of my medicinal peroxide of hydrogen are true, I am willing to submit myself to a thorough

test upon my own throat by spraying it with a twenty-five per cent. solution of Merchand's peroxide of hydrogen (medicinal) instead of a five per cent. solution as alleged to have been used by the learned doctor, for the same continuous number of days mentioned by him; and if any ulceration appears, or if the repeated applications of the remedy "does give rise to actual diphtheria," as he states may be possible; then I am willing to acknowledge that he is right. This test may be made any time with the utmost publicity.

I make this proposition in good faith from a scientific standpoint, and will expect Dr. Jacobi to make the test in the same spirit or acknowledge that he does not desire to do so.

Tobacco as a Protective from Cholera.—The Hygienic Institute of the University of Berlin has published the following conclusions, after repeated experiments made with relation to the spread of the cholera germ through cigars and tobacco.

The comma bacilli of cholera Asiatica die through drying up on dried tobacco leaves even quicker than through drying up on glass, and in this condition they die in an hour on the average. On moist tobacco leaves the comma bacilli do not increase, and are killed after a short time. The comma bacilli were not proved to exist in the examples of cigars manufactured in Hamburg during the prevalence of the epidemic. Through the fermenting and drying processes which they must undergo before they are ready for shipment, the cholera bacilli are killed after a short time, even when packed by way of experiment in the linen bands about the cigars. Tobacco smoke checks the development of cholera bacilli and is quickly fatal.—*The Medical Age*.

Distribution of Female Physicians.—*The New York Record* states that female physicians are scarce everywhere except in the United States. There are only seventy in London, five in Edinburgh, two in Dublin, thirty-five in Paris, one in Algiers, and 2,000 in the United States.

THE Albany Medical Annals

JOURNAL OF THE

Alumni Association of the Albany Medical College.

HOWARD VAN RENSSELAER, M. D., EDITOR.

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ANNOTATIONS.

On the Decadence of True Homœopathy.—The "Homœopathic Physician" utters the following melancholy wail over the decadence of homœopathy:

There are between twelve and fourteen thousand physicians in this country who claim to be homœopathists, and if a vote were to be taken upon the subject, to-day as to whether similia is a universal law and should be strictly adhered to in all medical cases, at least sixty per cent would vote against it; and there is no such a universal law, since "homœopathy is only a system of medicines, and not only the true system of cure; that similia similibus curantur should be written similia similibus curenter (Hughes and numerous others), and similia would answer in some cases, but in others we claim the right to the armamentarium of all the schools of practice and the physician who would not do so should not be allowed to practice, and be put down as a bigoted hahnemaniac (the last pronounced with a slur.)" Now why is this the case? If you should speak of them about "The Organon" many of them would not know what you meant; they would very likely ask, is it some new medicine, or is it something good to eat? and who has gotten it up, or what is it made of? I have never heard of it before." Were you to tell them that it was Hahnemann's promulgation of the law of homœopathy, and that no one

could practice homœopathy until he had made himself familiar with the law (the teachings of "The Organon"), and that it can be obtained nowhere else but from "The Organon," they will laugh in your face and tell you that you are one of those new-fangled hahnemaniacs, and that they have no use for it; that "Hahnemann was an old foggy," that he may have done well enough in his day, but we are progressionists and have long since outgrown him; that we have learned a great many things that Hahnemann never knew, or ever thought of. No, I do not think I want it." Should this appear strange when "The Organon" has not been taught in any of the colleges—that it has been left out of their curriculum? Could anything else be expected when many of the professors of these misnamed colleges have never perused a page of "The Organon in their lives? Then how could they teach it (the law) to their students? Is there not something wrong here? Shall we allow it to continue?—*The Medical Standard*.

A New Preparation of Iron, a Specific for Anaemia.—

Reynold W. Wilcox, M. A., M. D., professor of Clinical Medicine in the New York Post Graduate School and Hospital, read a scholarly paper entitled, "Anæmia, its Treatment with a New Preparation of Iron," before the section in General Medicine of the New York Academy of Medicine, April 19, 1892, which was published in the New York Medical Journal, May 7, 1892.

The author reports the clinical history of twelve cases of anæmia which he has treated with the most gratifying success by Weld's Syrup of Chloride of Iron (Parke, Davis & Co.'s.)

The conclusions of Dr. Wilcox are:

In anæmia iron is by far the best remedy.

Of all preparations the Tincture of Iron Chloride is the most valuable.

The official tincture is objectionable in that it excites nausea, disgust and vomiting, stains and destroys the teeth.

These disadvantages are obviated in Weld's Syrup of Chloride of Iron.

In removing these disadvantages its therapeutic efficacy is not in any way impaired.

On Stomach Fermentation.—Hoppe-Seyler (G.) Gases from the stomach have seldom been examined, and then such as were evacuated by eructation, or by fermentation of material previously removed from the stomach. By means of a simple

apparatus gas was removed from the stomach and analyzed. In the bottom of an inverted Woulf's bottle filled with water, through which the fluid removed from the stomach passed, the gases were collected; thence they were removed through a glass tube and analyzed by Hempel's method. Fifty-five analyses were made in nineteen cases of disease of the stomach.

In eleven cases of dilatation of the stomach large quantities of hydrogen (7.64 per cent.) and carbonic acid (19.58 per cent.), besides varying quantities of oxygen and nitrogen (from swallowed air), were found. The presence of such gases is no great rarity. In three of the cases there was stricture of the pylorus following gastric ulcer; in ten cases probably and in four certainly, carcinoma of the pylorus was present.

The hydrogen is chiefly produced by the so-called butyric acid fermentation. The presence of hydrochloric acid even up to 0.2 per cent. does not prevent this fermentation. In the absence of hydrochloric acid a larger quantity of carbonic acid gas was produced by the action of *torula cerevisiæ*.

In six cases no hydrogen was found. These were cases (of dilatation of stomach) with and without carcinoma, and cases without dilatation. In them was found mostly air, the oxygen partly absorbed with varying quantities of carbon dioxide. By this method in a comparatively short time, a decision can be reached as to whether gas filling a stomach arises from fermentation or swallowed air.—*Prager Med. Wochensh.*

Fighting Mice with a Bacillus.—Professor Loeffler's bacillary crusade against the field-mice of the Thessalian plain has ended in victory. The latest reports announce that the fields are strewn with the corpses of mice. It will be remembered that Professor Loeffler some time ago discovered a new bacillus, the "bacillus typhi nurium," which has the power of producing a certain disease in mice, and in mice alone. A plague of field-mice, threatening to destroy the harvest, having appeared in Thessaly, he was appealed to by the Greek government, and immediately started for Athens. He began his experiments by treating field-mice in the laboratory with injections of his bacillus cultivation, and when these experiments showed his method to be undoubtedly the right one, he started for Thessaly with a staff of Greek doctors. Bread crumbs, saturated with the bacillary substance, were strewn broadcast over certain fields and as early as a week

later the results were visible. Success being now assured Professor Loeffler will return to Germany, and the bacillus cultivation will be carried on at the seat of war itself.—*Medical Record*.

Incontinence of Urine Treated by Collodion.—Dr. J. E. Powers (Mass. Med. Jour.) says. The mechanical treatment to which attention is called, is the treatment by collodion. It is most easy of application, occupies scarcely a minute, and can be carried out at school, college or elsewhere, in perfect privacy. All that is necessary is, while the prepuce, slightly curved up, is held with the left hand, to smear over the little cup thus formed by the extremity of the prepuce with collodion by means of a small camel's hair pencil or blunt end of a penholder. Almost as fast as applied the collodion solidifies. In contracting it draws closely together the edges of the prepuce, and thus the exit for the escaping urine is closed.

A boy of eleven years of age has, after one lesson, been able to use the collodion, and has used it every night carefully and diligently, so anxious has he been to cure himself of what he considered a disgrace. A fortnight's use is sometimes sufficient for the cure. A relapse is easily dealt with. A solution of gutta-percha in chloroform would seem at first sight to be equally applicable, but it is not. The solution of gutta-percha is much longer in hardening, and it possess no contractile powers. When the child desires to pass water, the little wedge or cap of collodion is easily removed with the finger nail.

When I first used this collodion application, my expectation was that the bladder would act so forcibly against it as to cause sudden pain, and oblige the patient to jump at once out of bed and quickly remove the collodion, and that he should then repeat the application before returning to sleep. I was greatly disappointed. There was no pain; no awakening; but on rising in the morning the prepuce was found slightly distended with urine, and the collodion was removed without difficulty.—*The Canada Lancet*.

Treatment of Haemorrhoids.—Dr. J. Brindley James writes to the Br. Med. Jour., that he has for some years been in the habit of treating hæmorrhoids by the simple process of applying calomel to them with the finger alone, and without a single exception he has done so with marked success, especially when inflammatory action was obvious in the hæmorrhoidal mass, characterized by

mucus discharge and hæmorrhage, accompanied by most painful sensation of weight in the rectal region. All these symptoms under this simple influence were speedily relieved, with the still more important subsequent advantage of the patient's restoration to ease. "Only a few days ago," he writes, "a patient came to me suffering so acutely that he could neither sit nor walk freely, each movement of the body entailing exquisite pain. I have now seen him thoroughly enabled to pursue his usual occupations in happy immunity from these distressing symptoms."—*The Canada Lancet*.

One Thousand Cases of Labor Without a Death.—This is the result obtained at the Preston Retreat, by Dr. Joseph Price:

In this series of one thousand cases, a number of complicated labors were dealt with successfully both as regards the mother and child. Many feeble and impoverished subjects were treated. The patients are admitted two weeks before labor, and remain four weeks after labor. The toilet begins on admission with a bath, a laxative and clean clothing. Until the occurrence of labor, the women take two soap baths a week, the bowels are kept soluble and the kidneys are watched. When the premonitory symptoms of labor appear, a thorough bath is given, superintended by a careful nurse, an enema is administered, and the vagina douched with 1-2000 solution of bichloride of mercury, and the woman is given clean clothing and placed in a clean delivery room. The nurse makes a toilet and the physician makes a toilet before and after entering the room. As a rule only one examination is made. For some six years there has been no meddlesome midwifery. It is only in complicated labors that repeated examinations are made. But two vaginal douches are given, one before and the other after labor. It has never been necessary to repeat the douches. After the final douching a pint or so of the fluid is poured over the thighs and external genitals, and the pad is applied. This is changed four to six times a day for the first four days. There is never a perceptible odor. The mothers nurse their children without exception, and the mortality among the infants is very low. After labor the bowels are kept soluble. The patients are well fed before and after labor. They remain in bed usually eleven days and then go to the convalescent ward.—*Columbus Med. Jour.*

What Has Become of the Medicine of the Materia Medica?—In looking over many of the medical mirrors of thera-

peutics of the day we see nothing of the familiar names of the pharmacopœia, but in their stead numberless newly coined proprietary terms, such as phenactine, sulphonal, hypnal, antikamnia, petrolina, tassopetrolina, antisaron, therapine, exalgine, catalgine, tongaline, listerine, antipyrine, papine, neuraline, bromopyrine, and numberless antis and ines, febrina, cactina, sallister, kumysgen, protesinol, ponca, bromidia, katharmon, chionia, europhen, aristol, dermatol, benzothol, vin mariana, apioline-chapouteaut, febricide, tritica, bovinine, papoid, iodotane, santal-midy, sanmetta, salophen, ergotole, svapnia, iodia, dio viburnia, lithiated hydrangea, "et id omne." "What's in a name?" There's money in it. "What are we coming to?" "Heaven only knows."—*Alienist and Neurologist*.

The Doctor and Good Roads.—The sentiment of improving country roads is growing every year. It has reached our legislative assemblies, and bills are being introduced in order to secure State aid in the matter. Good roads are things which no class of persons would appreciate more than physicians, and to none would they bring more direct personal comfort, and even practical financial help. On a good road the country doctor can travel ten miles an hour; on a bad one, barely five. The time required in doing his work is doubled, the physical weariness is increased, the amount of visiting rendered possible is curtailed. Besides this, the patient suffers, for the doctor's visits are delayed and less numerous. He cannot watch the patient so closely, and he brings to his work a wearied body.

Perhaps the horse would argue most eloquently of all if he could speak in favor of good roads. His working life would be lengthened and his working days made easier.

With good roads the bicycle could be utilized, and through its invigorating influence, perhaps the country doctor would cease, as years rolled on, to become obese from too much sitting in a wagon, his wits would be sharper, his professional work better.

By all means then, let the doctor take up the gospel of good roads and urge forward their construction. They make intercourse more easy, work less burdensome, work more enjoyable; and they are, in fine, and event of the progressiveness and civilization of a community.—*Med. Record*.

A Diphtheria Epidemic Caused by Ice.—The Washington newspapers report the singular origin of an outbreak of thirty-

two cases of diphtheria, of which fifteen proved fatal, that occurred in a small locality in that city. The body of a child that had died of diphtheria was packed in ice for two days, and when the body was transferred to the coffin the undertaker threw the ice on the ground outside his shop. Three children were seen eating the ice and in eight days they presented acute symptoms of diphtheria and died in a few hours. In all, thirty-two cases of the disease were ascribed to the deposit of ice on the ground.—*New York Medical Journal*.

Therapy of Phenacetine.—John V. Shoemaker, A. M., M. D., Philadelphia, writes as follows: Phenacetine was originally introduced into medical practice as an antipyretic, and subsequently was found to possess analgesic powers. In diseases attended by hyperæmia, such as rheumatism, pneumonia, typhoid fever and phthisis pulmonalis, phenacetine exerts a very happy effect in about half the dose of antipyrine, the ordinary dose being from 3 to 8 grains. The mortality of the typhoid fever of children has been very materially reduced by the employment of phenacetine. The fall of temperature does not occur until half an hour after the drug has been taken, and the effect continues from four to eight hours. As an antipyretic, phenacetine is considered by many good authorities as the safest and most efficient member of the analine group. In epidemic influenza, phenacetine rapidly relieves the muscular pains and favors diaphoresis; the catarrhal symptoms subsequently require other remedies.

In ordinary colds, one or two five-grain pills of phenacetine removes all symptoms. The combination of salol (or salophen) with phenacetine is especially useful in influenza and rheumatism.

The analgesic effects of phenacetine are very marked in various forms of headache, including migraine and the headaches from eye-strain, having the advantage over antipyrine in not so frequently causing a rash.

In the neuralgic pains of tabes dorsalis, in herpes zoster, and intercostal neuralgia, five-grain doses, given every hour for three or four hours, usually afford complete relief and cause sleep.

Phenacetine is extremely useful in chronic neuritis, and, according to Kater, is unsurpassed in the treatment of cerebral disorder due to excessive indulgence in alcoholic drinks.

In whooping cough one-half grain doses dissolved in ten drops

of glycerine are readily taken by children, and afford prompt relief permitting sleep and ameliorating the attacks.

In delirium, a dose of ten grains will usually afford a quiet night.

Mahnert considers phenacetine a specific in acute articular rheumatism, as it reduces fever, relieves pain, and lessens the duration of the attacks. It has been found useful in some cases of gonorrhœal rheumatism, and is worthy of more extended trial in this rebellious affection.

Given several hours before the time of the paroxysm of intermittent fever, it prevents the chill.

In insomnia from simple exhaustion phenacetine acts admirably. —*Shoemaker's Materia Medica. Pharmacology and Therapeutics, Vol. II.*

The Chamber of Commerce of New York and National Quarantine.—The Chamber of Commerce held a meeting December 13th, to receive the report of the special committee on Quarantine, appointed on September 9th, which consists of Alexander E. Orr, Seth Low, Samuel D. Babcock, J. Pierpont Morgan and Austin Corbin. Dr. Orr who is vice-president of the Chamber, presided, in the absence of president Charles Stewart Smith, and Mr. Low read a voluminous report, with the appended reports of the Advisory Committee of Physicians.

The reports condemned the present system of quarantine in New York, and advised in favor of national control, giving reasons substantially as follows:

1. The Federal government being an indispensable factor in every quarantine crisis, it is only by giving to the Federal government complete control that conflicts of authority and the weakening effects of official jealousy can be avoided.

2. The Federal government, in every crisis, through the various arms of the public service, is able to command an amount of expert co-operation entirely beyond the reach of the state department.

3. The Federal government has at command the trained men who have to be summoned to the help of the state in time of peril. It is better to have the Federal government directly responsible, instead of indirectly.

4. To these may be added the further consideration that the co-operation of consuls with the quarantine officials is a matter of

growing importance. The health officer complains that he failed to receive the aid from this quarter to which he was entitled. It is clear that these officers would be less likely to be at fault as toward Federal officials.

5. An international supervision of infectious diseases is a probable and very disirable outcome of recent experiences. Such an outcome would of itself necessitate a national quarantine.

The committee concluded the report by offering the following resolution:

Resolved, That the Chamber of Commerce authorize the President and Congress of the United States to enact, as speedily as may be, a suitable law placing the control of quarantine at New York and at all other places under national control.

Resolved: That the attention of Congress is respectfully directed to the injurious influences that continued indiscriminate immigration may have upon the welfare of this country, in the hope that careful investigation relative thereto may be promptly had.

Resolved: That the thanks of this committee be extended to the Advisory Committee of Physicians for their invaluable service in connection with the recent quarantine at New York.

Resolved: That the President of the Chamber of Commerce be requested to convey to the Governor of the State, His Excellency Roswell P. Flower, and to the Secretary of the Treasury of the United States, the Hon. Charles Foster, the high sense of appreciation in which this chamber holds their active, intelligent and public-spirited services during the recent quarantine.—*New York Medical Journal*.

Governor Flower on National Quarantine.—“I am not opposed to a national quarantine, but an exclusive national quarantine, such as is urged in contemporary discussion. There is a field in which the Federal government must exercise quarantine powers. This field offers opportunity for realizing all the advantages urged for an exclusive national quarantine without incurring any of the disadvantages. Our great danger from cholera and other pestilent diseases is not from their origin in this country, but from their introduction from abroad. The important thing therefore, is to prevent this foreign invasion. The Federal government already has it within its power, through its consular service, to exercise as stringent a quarantine against the importation of infectious and contagious diseases into this

country as could be accomplished in any other way."

"A rigid system of inspection at foreign ports, under the direction of the consular service, would form the best kind of national quarantine. As for the rest, it can safely be left to State jurisdiction and control. A complete Federal quarantine within the legitimate field of Federal power, will fitly supplement a complete State quarantine within the natural field of State power, and both supplementing each other in this way will afford the securest protection to public health."

REVIEWS AND BOOK NOTICES.

Tuberculosis of Bones and Joints. — By N. SENN, M. D., Ph.D., Professor of Practice of Surgery in Rush Medical College; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon Presbyterian Hospital; Surgeon-in-Chief St. Joseph's Hospital; President of the American Surgical Association; President of the Association of Military Surgeons of the National Guard of the United States; Permanent Member of the German Congress of Surgeons, etc. Illustrated with 107 Engravings (seven of them colored). In one handsome Royal Octavo Volume. Five hundred and twenty pages. Extra Cloth, \$4.00 net; Sheep, \$5.00 net; Half-Russia, \$5.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1231 Filbert Street.

This work appearing at a time when surgeons and physicians are bending their energies towards the betterment of diseased joints, is opportune. While being made up largely from both old and new articles written by foreign and American medical men, yet Prof. Senn has so arranged these with his own observations, theories, and plans, as to make a very complete and valuable work. From the history of tubercular affections down to therapeutics, each chapter is both concise and complete. The bacillus is briefly but clearly described, and methods and tests given for its cultivation and detection. Of especial note is the portion devoted to the practical part of the subject, namely, the treatment. The plan of treatment is clearly laid down, and no one can read but be highly instructed. Koch's treatment by tuberculin is given a chapter, and is dealt with in detail. The work closes with sev-

eral chapters on tuberculosis of special joints. The volume is one to be recommended as a text book. Its clear large type, and many original illustrations add to its value. For the latter, as well as the general get up of the book, the publishers are entitled to great credit. C. B. H.

A Text-Book of Nursing for the use of Training Schools, Families, and Private Students. Compiled by Clara S. Weeks-Shaw, Second edition, Revised and Enlarged with Illustrations. D. Appleton & Co., New York, N. Y.

The advances of human knowledge and experience are rapidly compelling a recasting of all forms of medical thought. Subjects that even two or three decades ago were but little considered and found scant or no place in our text-books, are now pushing themselves to the front and are even becoming dignified into specialties. In some cases even, sources or schools are devoted exclusively to them. This is particularly noticeable with the subject of nursing.

Females of the "Sairy Gamp," order are fortunately rapidly becoming obsolete, and in their place a new race of trained assistants in the sick room are being seen on every side.

To supply the information to those working in our training-schools, and also of keeping the practitioner abreast of the times in this important auxiliary branch of medicine, this work has been written by one whose long experience in the training of nurses, has made her a recognized authority on the subject.

The first edition of the book was issued in 1885 and the rapid progress in the art since that time has necessitated a new edition.

In the work as it now stands, much valuable matter has been added, the subjects are better systematized, and the matter which has been superseded by more improved methods has been omitted.

It contains everything necessary for a nurse to learn, and wisely leaves out the discussions on physiology and anatomy which are apt to encumber books of this character.

The work is of convenient size and nicely gotten out by the publishers. H. V. R.

NEWS ITEM.

The "American Text Book of Surgery" edited by Professors Keen and White of Philadelphia, which has only been issued a few months is already a phenomenal success. It has been adopted

as a "Text Book" by forty-nine of our leading Medical Colleges and Universities. Nearly five thousand copies have been placed in physician's libraries, and every indication points to a sale of at least as many copies more in the next six months.

Dr. Nicholas Senn, of Chicago, is now preparing a "Syllabus of Lectures on the Practice of Surgery," arranged in conformity with the "American Text Book of Surgery," which will be a valuable aid to all who have this great book.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received.

Clinical Reports on Insanity. By the Medical Staff of Maryland Hospital for the Insane.

Electrical Treatment of Certain Phases of Neurasthenia. By W. F. Robinson, M. D.

Charles Merchand vs. A. Jacobi, M. D., New York.

Report of the Water Commissioners to the Common Council of Albany, Recommends a Water Supply from Kinderhook Creek.

Hernia in Infancy and its Treatment. By W. B. De Garmo, M. D.

Cataract-Operation in our Time. By E. Landolt, M. D., Translated at the authors request by C. M. Culver, M. A., M. D.

Zymosis and Pathogenesis: A Bacteriological Sketch.

Shall the Electrical Practice of Medicine be Perpetuated? By J. Fearn, M. D.

Specific Medication—What is It? By John M. Scudder, M. D., Contributions from the Surgical Service of St. Mary's Hospital for Children. By Charles T. Poore, A. M., M. D.

Sanatorium for the Treatment of Diseases of Women by Electricity. Circular of Information.

Microscopical Researches of the Corpuscular Elements of Blood. By N. L. Holbrook, M. D., New York city.

St. Augustine Report upon her present Sanitary condition. By John S. Billings, M. D.

Compressed Air and Spray in Diseases of the Nose Throat and Ear. By Seth Scott Bishop, M. D.

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Four Cases of Sarcoma Presenting Some Unusual Features.*

BY W. G. MACDONALD, M. D.

GENTLEMEN:—

I wish to present to you to-night, without extended comment, and from a purely clinical and pathological standpoint a group of four cases of sarcoma presenting some unusual features to my mind.

Sarcoma of a Retracted Testicle:

M. S., aged forty-five, single, native of the United States, and by occupation a stable man, was admitted to Albany Hospital Nov. 12, 1892. A careful inquiry into his family showed nothing of interest.

The patient has suffered from no general diseases, except rheumatism, of which he has had many attacks. There is no history of venereal disease. S. has been a free spirit drinker all his life, but never was drunken. Recently, difficulty in retaining his urine has been experienced.

Thirty years ago his right testicle became drawn up to the external abdominal ring and finally wholly within the inguinal canal. It remained there until four years ago quiescent, when it began to increase in size very gradually, but was painful only when injured. However, within the last six months it has grown very rapidly; become painful and shows its general influence through impaired health.

*Read before the Medical Society of the County of Albany Feb. 15, 1893.

His appetite is now very poor, he sleeps badly. Upon examination a tumor presented itself in the right groin the size of a man's head. It is slightly movable over adjacent tissues, is encapsulated, smooth in outline and seems semi-solid in consistence. There are no swelling in adjacent glands, or can any other tumor be found. Heart and lungs normal, urine contains nothing abnormal.

A diagnosis of cystic sarcoma of an indescended testicle was made, and its removal undertaken Nov. 28, 1892, with the kindly advice and assistance of Dr. Vander Veer. A free incision was required as may be seen upon examination of the scar. The growth was thoroughly encapsulated and its enucleation was accomplished without serious difficulty. At no point was the deep abdominal fascia divided. The pedicle was ligated similarly to the ligation of the pedicle during ovariectomy. The wound was closed with short glass drainage. Although an attack of rheumatism occurred after the operation, the wound closed primarily excepting at the point drainage.

The tumor weighed immediately after removal six and one-fourth pounds, was regular in outline and semi-fluctuant. However on section it was free from fluid and made up of a reddish friable tissue relatively free from a connective tissue framework. Microscopical examination confirmed its macroscopic appearance, round and spindle called sarcoma. There was no vestige of the structure of the testicle left in the tumor.

It appeared to me that this case was of sufficient interest to present to you, illustrating a condition of new growth grafted upon a retained or a retracted testicle, a rather common occurrence. The unusual size of the growth before operation seems also to demand our attention. It is also an evidence of the influence of constant irritation in the development of malignant growths.

General malignant Lympho-Sarcoma:

Mrs. J. E. P., aged 74, a widow and a native of the United States, was seen by me in consultation with Dr. Eugene Beach in late Nov. 1892, for a condition of multiple tumors situated

in various parts of the body. Her family history showed a marked tubercular tendency. An aunt died of cancer of the stomach.

She gave a history of fair previous health, had had pneumonia once. In August 1892 she noticed a small tumor to the outer border of the right breast, it grew rapidly and simultaneously many similar growths appeared in both axillary spaces, in the groins, over the abdomen and the limbs, the neck was never implicated. At the time I saw her she had counted 260 accessible tumors. Laterly she began to lose flesh and suffered from nausea and vomiting. All these tumors were accessible, never distinctly glandular, but adherent to surrounding structures. Upon examination a large growth could be made out connected with the right kidney and smaller ones palpated through the abdominal walls in other relations. The spleen seemed normal in size, the pulse was eighty-four, temperature normal, the skin was dry, pale and harsh, the mucus membranes were pale. A few days subsequent to my visit her right foot became caught in the bed clothing and a fracture of the femur resulted. Her blood was rather inaccurately examined at the time of my visit, the white corpuscles not being increased. Several subsequent countings with a Thoma apparatus showed the relation of white to red to 1:260, 1:320, 1:280, and about 3,896,000 corpuscles per cubic centimeter. December 21, 1892, Mrs. P. died, and sixteen hours subsequent I held a post-mortem examination. Stripped of unnecessary detail the results were as follows: The glandular tumors in the right axilla were adherent to surrounding structures and had gone beyond the limits of their capsules. The mesentary and walls of the intestine were studded with tumors varying from a pea to the size of a bean, to an English walnut. The peritoneum also covered at intervals with similar growths, the spleen was of normal size, rather small and presented a normal appearance, liver normal, no metastatic growths, kidneys and supra-renal capsules were studded within their substance with new

growths. The mediastinal space was also involved. In the right lung nearly fifty growths were counted; the lower lobe of the left lung was free. The heart and pericardium were normal except in the right ventricle, a new growth the size of a filbert was embeded in the muscle. The fracture was examined and nothing unusual in the bone noticed. I was only permitted to bring away portions of the growths for microscopic examination, in them I was not able to find any remains of the reticulum of the normal lymph-glands. There was a very sparce connective tissue framework, the medullary substance of the growth was made up chiefly by small round multo-neucleated cells. In short had all the microscopical appearances of sarcoma. The case may be said to be one of malignant lympho-sarcoma, not employing this term as a synonym of leukaemia, pseudo-leukaemia, leucocythemia or Hodgkins. It seems too that this case has presented clinical features and pathological conditions altogether at variance with the above diseases.

Retro-peritoneal Myxo-sarcoma, with General Metastasis.

M. S., aged forty-six married, native of the United States, was seen by me with Dr. Happel of this city June 16, 1892, under the belief that we had a distended gall-bladder to deal with, there was nothing in his family history of any moment. He had served through the war, and suffered from intermittent fever afterwards, there was no history of syphilis, otherwise he had been always healthy until beginning of present illness six month ago. He than began to suffer from so-called bilious attacks associated with constipation. He saw several physicians, none of whom seem to regard his case seriously enough to make a physical examination until he came into the care of Dr. Happel, about July 1, 1892. He complained of a constant pain in the right side, loss of appetite, flesh and strength, his tongue was constantly furred, there was a fulness extending from cartilage of tenth rib toward umbilicus, and corresponding to position of a distended gall bladder. From his symptoms, an exploratory laparotomy was advised under the belief that we had an empyaemia of gall bladder. The patient be-

came greatly alarmed, sought other councils who asserted that he had no trouble, and he declined operation. His condition grew worse, an apparent gross enlargement of the spleen occurred. He returned to our care and was seen several times by Dr. Vander Veer, in consultation. We now took the view that the case was probably malignant, and could only decline the operation which the patient now so earnestly urged. He was put upon full doses of arsenic combined with quinine without the least mending. He suffered from pressure albumenuria and partial obstruction of the bowels, and finally died December 16, 1892. Although a member of the Hebrew faith we secured a post-mortem examination after making faithful but unkept promises. Stripped of superfluous verbiage the following conditions were found. An immense retro-peritoneal new growth springing from the neighborhood of the left supra-renal gland. Metastatic growths of a similar gross appearance varying in size from a cherry to an apple were found in the mesentary, both kidneys, the liver, the lungs, the spleen was slightly enlarged. After proper preparation several sections of these different growths were made, aside from degenerative changes occurring in the large ones they presented precisely similar features, a combination of mucus and sarcomatous tissues, myxo-sarcoma multi-polar nucleated cells, and oat-shaped cells.

Multiple Subcutaneous Fibro-sarcoma.

Mr. J. G. R., aged twenty-six, single, native of the United States, and a student by occupation consulted me several months ago on account of several small swellings located upon his arms. His habits were perfectly correct, his general health good. No etiological factor could be determined from his family history. He suffered no inconvenience other than the anxiety concerning their appearance, An examination of them failed to satisfy me regarding their precise character, gumma was excluded by history and the *result* of a vigorous antisyphilitic treatment. Multiple lipomae was an opinion expressed by another surgeon, finally in view of the general dissemination of these tumors over all the

extremities and especially in the abdominal walls, I undertook the excision under local anesthesia of some of them for diagnostic purposes. The tumors removed were firm, reddish white in color and completely incapsulated. After hardening and embedding, sections were made. These were found to be made up of spindle cells altogether. While new tumors appear here and there occasionally, the general health of the patient seems good. He thinks that under his present treatment some of the tumors have disappeared partially. For the last three months he has taken faithfully Donovan's solution of the double iodide of arsenic and mercuric in full doses.

There are many features regarding these cases which belong purely to the domain of speculation, I hope may be brought out in discussion, especially in the three last cases whether or not the tumors are not evidence of a general systemic infection rather than of a local growth with the occurrence of metastasis. For my own part I am inclined to think they are but local evidences of general infection.

The Annual Meeting of the Medical Society of the State of New York.

The eighty-seventh annual session of this society was commenced in Albany, on February 7th, 1893. After a brief prayer the president Dr. Lewis L. Pilcher, of Brooklyn, opened the conference. The necrological report was then read which showed the death of the following: Dr. T. Burton, permanent member, died at Fultonville, May 5, 1892; Dr. A. Pollard, P. M., at Port Henry, April, 1892; F. L. R. Chapin, P. M., at Glens Falls, April, 1892; Charles E. De La Vergne, P. M., at Brooklyn, June, 1892; James R. Seaming, P. M., at New York, December, 1892; G. J. Fisher, February 3, 1893.

Dr. Curtis, of New York, presented the report of the committee on experimental medicine as follows: Your committee recommends to the society to renew the action taken at a number of its former annual meetings by passing the following:

Resolved, That the performance of scientific experiments

upon living animals is essential to the maintenance and progress of the medical sciences and the medical art, and that to discourage such experiments would be highly injurious to the public welfare.

Respectfully submitted,

FRANCIS DELAFIELD, Chairman.

The resolution was adopted without a dissenting vote.

The committee of arrangements asked that the courtesies of the society be extended to a large number of doctors not members of the society. The request was granted on a motion. It was moved and carried that the papers of guests of the society read at these meetings be published in the printed proceedings of the society,

Resolutions were adopted recommending the establishment of a national quarantine. A little later in the day a telegram was read announcing that the national quarantine bill had passed both houses of congress, and, after discussion, it was resolved that a telegram embodying the resolution sent to the New York delegation be sent to President Harrison. The resolutions merely state that the New York Medical Society is in favor of a national quarantine.

The titles of the valuable and interesting papers read at the meeting have been given in the February number of the *Albany Medical Annals*. One of the most important papers to the profession at large was read by Dr. Kortwright, on "The Registration of Midwives." He recommended that a law be passed in this State, such as there was in two other States, compelling midwives to qualify before physicians and be licensed. The wisdom of such legislation is too plain to need the quotation of the arguments read. The matter was referred to the committee on legislation at the conclusion of Dr. Kortwright's paper,

There was a large and enthusiastic attendance at all the sessions of the meeting. Among the listeners being several lady physicians. All the papers were listened to with marked attention and interest, and many were vigorously applauded.

Dr. W. H. Bailey gave a dinner to the ex-presidents of the

State Medical Society at the Albany Club Monday evening. An elaborate table was spread and a choice banquet was enjoyed. Those present were Daniel S. Lewis, D. B. St. John Roosa, Lewis Pitcher, New York; William S. Ely, Rochester; A. Walter, Herkimer; B. F. Sherman, Ogdensburg; William C. Wey, Elmira; S. B. Ward, Thomas P. Bailey, Albert Vander Veer, Albany. There was present also Melvil Dewey, W. J. Milne, Charles R. Knowles, the Rev. Dr. Jewett and the Rev. Dr. W. H. Buttrick.

The second day's session was made interesting by the rejection at the afternoon session of the report by the committee appointed last year to consider the question of capital punishment.

Dr. Jacobi, of New York, perhaps the most distinguished member of the profession present, reported as chairman of the committee. If was unqualifiedly in favor of the abolition of the death penalty and urged that post mortem examinations of the brains of executed criminals showed, in many cases, that the unfortunate fellows were mentally defective; that they were suffering from disease of the brain and were irresponsible for their murderous actions. Furthermore, it would preclude the possibility of an innocent man being judicially murdered. The report also said that if the pardoning power of the chief executive was abolished, imprisonment for life would be as much a deterrent of murder as is capital punishment at present.

When the vote was taken many members of the society were absent from their seats. There was a lack of proper discussion and when a vote was taken on the report it was rejected by a vote of twenty-four to twenty-nine.

There is a possibility that the advocates of the abolition of capital punishment will bring up the question again before the society adjourns sine die. Many thought that had the entire society voted on the question the report would have been adopted.

Dr. Albert Vander Veer, of this city, presented the report of the committee on the president's address. The report contained

the following resolution: That the Medical Society of the State of New York deems it unwise at this time to appoint any committee of conference with the American Medical Association upon the subject of medical ethics, as requested by that distinguished body, but the Medical Society of the State of New York ventures to express the hope that the American Medical Association, at no distant day will take such action as will remove the merely technical obstacle to the most cordial cooperation between the two societies.

The report was unanimously adopted.

Report of committee on nominations: Your committee on nominations for the ensuing year respectfully submits the following report adopted unanimously.

For President, Herman Bendell, Albany; Vice-President, C. L. Stiles, Osego; Secretary, F. C. Curtis, Albany; Treasurer, C. H. Porter. Albany.

Standing Committee, Committee on Arrangements: Henry Hun, Albany; Seneca D. Powell, New York; W. J. Nellis, Albany.

Committee on By-Laws: H. D. Wey, Elmira; A. R. Simons, Utica; F. C. Curtis, Albany.

Committee on Hygiene: Chas. E. Bruce, New York; H. R. Hopkins, Buffalo; A. N. Bell, Brooklyn; D. S. Burr, Binghamton; Lewis Balch, Albany; E. H. Loughran, Kingston; O. W. Peck, Oneonta.

Committee on Legislation: D. B. St. John, Roosa, N. Y.; Daniel Lewis, New York; D. V. O'Leary, Albany.

Committee on Medical Ethics: Jno. S. Warren, New York; Chas. Jewett, Brooklyn; Eugene Beach, Gloversville.

Committee on Prize Essays: Franklin Townsend, Jr., Albany; A. Walter Suiter, Herkimer; Chas. Stover, Amsterdam.

Committee on Publication: F. C. Curtis, Albany; Wm. W. Potter, Buffalo; F. D. Bailey, Brooklyn; C. H. Porter Albany.

President Pilcher announced the following committee to select candidates for the State board of medical examiners:

Drs. Jacobi, Myner, Hopkins, Browning and Townsend.

Dr. Maurice J. Lewi, of this city, presented a report from the committee on legislation. He said that the duties of the committee were more preventive than creative. It required much vigilance to prevent the law of 1890, under which our present excellent system of medical education now is controlled, and the law of 1887 requiring the registration of all practitioners, from being tampered with or modified. The past three years had been the most healthful the cause of medical education had ever experienced.

Dr. Angell presented the following report, which was referred to the committee on legislation:

RESOLVED, That the Medical Society of the State of New York endorses the project of establishing an epileptic colony in the State of New York and approves of the report of the State board of charities selected Sonyea, Livingston county, as the situation for such a colony.

RESOLVED, That this society respectfully urges the legislature now in session to make the necessary appropriation for carrying out the proposed plan.

Dr. A. Walter Sutter, as chairman of a committee consisting of Drs. A. Vander Veer, Seneca D. Powell, James D. Spencer, William Warren Potter, D. B. St. John Roosa and John O. Roe, reported that the committee appointed at the last meeting to which was intrusted the interests of the society in the organization of the Pan-American medical congress, reported the perfected organization of the congress, with the apparent assurance that all indications point to the success of the vast and comprehensive work.

His report was a very lengthy one and announced that the conception and inauguration of the great scheme which contemplates the unification of the entire medical profession of the western hemisphere upon the basis of organized fraternalization will be an event of incalculable value to various public and professional interests involved and a magnificent exhibition of scientific progress and worthy of an important position among the many attractions of this interesting Columbian year.

Dr. Jacobi announced that at the meeting next year he would move the adoption of the following resolutions. This he said would give ample time for the consideration of the matter:

In order to keep the election to the highest offices in the gift of the Medical Society of the State of New York free at all times from the possible influence of personal solicitation and preconcerted plans and other so-called political methods, be it

RESOLVED, That nominations for president and vice-president shall henceforth be made on the floor of the house at the first meeting on Tuesday, and that three tellers be appointed by the president immediately thereafter; that the first ballot on such nominations shall be taken in a place detached from that of the executive business and the scientific discourses, during the second meeting on Tuesday; that, if no majority is reached, the polls to open again during the first meeting of Wednesday, and if no decision be then reached, further balloting shall take place at the second meeting on Wednesday. The results of the election for president and vice-president shall be announced publicly before the close of the evening session of Wednesday.

RESOLVED, That chapter IV of the by-laws be amended in accordance with this resolution. Be it further

RESOLVED, That no judiciary district shall be entitled to furnish a candidate for presidency oftener than once in five years.

The remainder of the afternoon session was devoted to the reading and discussion of papers.

The society then adjourned to meet at eight o'clock in the senate chamber to listen to the annual address of the president.

There was a large attendance at the evening session. Dr. Pilcher read one of the best papers that the society has ever received. It was entitled, "The Evolution of the American Surgeon."

He spoke briefly as follows:

The Columbian year has just expired. The pomp and glitter of processions, and the rhetoric of eloquent oratory, the marshaling of historical items from the annals of the past, the resources of the imagination, the fruit of the printer's type, the painter's brush, the sculptor's chisel and the architect's pencil have all been combined in celebrating the faith and courage and persistence of the discovery and the wonderful material progress of the discovered. For the time we have been making of chief interest in our thoughts the times in which the discoverer lived, the place that gave him birth, the conditions that molded him in his development, the influences that drove him on in his purpose and maintained him during many days of his advance across unknown waters toward the land of his dreams.

It is but natural, therefore, that an assembly of medical gentlemen sharing in the general epidemic influence, should turn with special interest to the condition of their own profession at this particular period of the world's history, and should with interest and mayhap with profit, trace the changes which have marked the development of the medical world during the four centuries that have elapsed. I would invite attention to the surgeons and surgery of the Columbian era. The character and attainment of the physicians of an age or nation in a particular degree is always an exponent of the average character and attainments of this class, plus the added refinement and elevation of character which the pursuit of the medical study and practice inevitably attaches to its devotee. The medical profession is peculiarly "of the people, by the people and for the people."

The accomplished and enlightened Emperor Frederick II attempted to regulate the medical profession in his kingdom of Naples and Sicily 300 years ago, and enacted that "since no progress can be made in medicine without logic we will and ordain that no person shall be admitted to the study of this art unless he has given at least three years to logic. Afterwards he shall devote five consecutive years to medicine and at the same time to surgery which forms a part of medi-

cine. Then only, and never before this time, shall he be admitted to examination and receive permission to practice." And he still further ordained that the first year of the neophyte's practice should be done under the eyes of an old and experienced physician. Wise ruler! No better regulations could be devised by the most enlightened legislature at the close of the nineteenth century.

The Columbian period is not distinguished by any pre-eminent surgery nor by any epoch making discovery.

He then reviewed the history of surgery up to the present century, and said that the surgeons upon this continent during the last hundred years have by their lives contributed to the development of a type of workers in surgery which may properly be called a distinct school—that of American surgery. He spoke of McDowell, the pioneer in intraperitoneal surgery; of Otis, of New York, famed for his work in genito-urinary surgery; of Marvin Sims for his work in gyneocological surgery; of Sands, McBurney, Weis and Bull, Stimson and Fowler, leading in the long list of the many who have contributed to the present state of perfection of treatment of affections of the vermiform appendix.

Then he enumerated the leading men in the science of medical surgery, bringing his lecture down to the present day.

The annual dinner of the State Medical Society at the Delavan last evening was fully as attractive an event as usual. The time set was 9:30 o'clock and the corridors of the hotel were filled at that time with well known men. The arrangements for seating the large party in the dining room, however, occupied some time, and it was 10:15 P. M. before the hungry surgeons were placed about the banquet board. A number of guests were in attendance, including Senator Parker, Rev. Mr. Raymond, Rev. E. P. Johnson, Verplanck Colvin, Prof. O. D. Robinson and others. Plates were laid for over 200 people, and every seat in the handsome dining room was taken. Dr. Herman Bendell of this city, presided as toastmaster. The dinner was very substantial and prepared to the taste of the medical men.

The first toast of the evening, "The State Society," was announced at 11:25, when Dr. Bendell introduced President Dr. Lewis R. Pilcher, who made an appropriate response.

The Rev. Dr. A. V. V. Raymond gave an eloquent tribute to "The Clergy."

Senator Amasa J. Parker spoke for "The State of New York."

Senator McClelland responded for "The Legal Profession."

"The City of Albany" was the toast assigned to Prof. O. D. Robinson, and it received good treatment at his hands.

Dr. Daniel Lewis, of New York, responded for "Our ex-Presidents," and Dr. Frank West for "The Greater New York."

Report of Patients Treated and Operations Performed in the Albany Hospital, Albany, N. Y., from January 1, 1892, to January 1, 1893. Compiled by Walter H. Conley, M. D.

TO THE MEDICAL AND SURGICAL STAFF:

GENTLEMEN:—I have the pleasure to present to you a report of the cases treated and operations performed in the Albany Hospital, from January 1, 1892, to January 1, 1893.

Cases treated in Hospital:

No. patients remaining Jan. 1, 1892,	68	
" " admitted during year 1892,	956	—
Total No. of patients treated during year 1892,		1,024
No. patients discharged during year '92,		
" " " cured,	582	
" " " improved,	252	
" " " unimproved	49	
" " " died,	74	—
Total		957
" " remaining, Jan. 1, 1893,	67	—
Total No. of Patients,	-	1,024

Cases treated in Out-Door Department:

No. patients treated during year 1892, males,	4,197	
" " " " " females,	4,288	—
Total,	-	8,485

Cases Treated in Clinics, etc.:

No. patients treated during year 1892, males,	680	
" " " " " females,	721	—
Total,	-	1,401

Total number of patients in all Departments:

In Hospital,	-	-	-	-	1,024	
In Out-Door Department	:	-			8,485	
In Clinics, etc.	-	-	-	.	1,401	—
				Total,	-	10,910

Number of Operations performed during year 1892:

General operations,	-	-	-	-	516	
Eye and Ear operations,	-	-	-	-	110	—
				Total,	-	626

It will be readily observed from the foregoing statistics, that the work performed by this Hospital, has increased rapidly.

In comparison with the last report published, which was in 1880, it being for the two (2) years, March 1, 1878 to March 1, 1880, they show that there have been treated in the past year more patients than were treated in the two years combined in the last report.

Number of patients treated in Hospital, report of '78-80, 936
 " " " " " " 92, 1,024

The work performed in the Out-Door Department has increased enormously.

Number of patients treated in Out-Door Department, report of 1878-80, - - - - - 3,399

Number of patients treated in Out-Door Department, report of 1892 - - - - - 8,485

The number of operations has also increased considerably.

Number of Operations performed, report of 1878-80, 542
 " " " " " " 1892, 626

The Hospital has done as the figures abundantly show good work; but it has been hampered by its limited accommodations, and has been compelled, reluctantly, to turn away patients absolutely, or else have them suffer until room could be made for them. This lack of room has not only caused delay in the admission of patients, but has also hastened the discharge of those convalescent sooner than they would have been discharged had there been more room, in order that their places might be filled by those in greater need.

Observing as I have, I cannot help but acknowledge the kindly help and courage given by many friends of the hospital, who have shown their interest in the institution and patients in many ways, by frequent visits, and gifts of flowers, other donations and cheerful tokens of sympathy.

I wish to thank you, the staff, for your advice and assistance in the preparation of this report.

WALTER H. CONLEY, M. D., PH. G.,

JANUARY 1, 1893.

Resident Senior Surgeon.

Surgical and Gynaecological.

DIAGNOSIS.	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Abcess, Cervical		1		1					1
“ Frontal Sinus.		1			1				1
“ Hepatic.		1			1				1
“ Labia Majora			1				1		1
“ Lumbar		1			1				1
“ Pelvic	1		2	1				1	2
“ Psoas.			1	1					1
“ Scrotal		2		2					2
“ Thecal.		1		1					1
“ Thigh		1		1					1
“ Tibia		1		1					1
Acne, Rosacea	1	1			1				1
Adenitis, Inguinal		5		3	1			1	5
“ Submaxillary		6		5	1				6
Adenoids, Post. Nasal		1	2	3					3
Adenoma of Breast		1		1					1
Amenorrhœa			1	1					1
Anchylosis of Fingers		1		1					1
Ankle, Sprain of		1	1	2					2
Anus, Imperforate		1	2	1	1			1	3
Atony, Vesical		1			1				1
Births		2		2					2
Burns of Body			2				2		2
Bursitis of Knee	1	2	1	2	1				3
Calculus, Biliary			3	1	1	1			3
“ Vesical	1	10	1	8			3		11
Carcinoma of Axilla		1					1		1
“ Breast	1		29	25	3			1	29
“ Cervix	1		2	1		1			2
“ Intestines		1				1			1
“ Stomach			1			1			1
“ Umbilicus		1						1	1
“ Uterus			2		1	1			2
Carcinomatous Glands, Cervical		1		1					1
“ “ Inguinal			1			1			1
“ “ Submaxillary	1	5		3		2			5
Carbuncle of Hand		1		1					1
Cellulitis of Arm		1					1		1
“ Hand		4		2	2				4
Cervix, Laceration of			23	14	3	2	2	2	23
Chancroids		7	4	9				2	11
Concussion, Cerebral		2		2					2
Contusion, Arm		2		1	1				2
“ Back		1		1					1
“ Foot		1		1					1

DIAGNOSIS,	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Contusion General	14	4	17	1	.	.	.	18
" Knee	1	1	.	.	.	.	1
Cyst, Breast	1	1	.	.	.	.	1
" Cervical	1	1	.	.	.	.	1
" Nasal	1	.	1	.	.	.	.	1
" Ovarian	12	8	2	.	2	.	12
" Dermoid	4	2	.	.	2	.	4
" Sebaceous of Face	1	1	.	.	.	.	1
Cystitis, Acute	1	9	1	.	.	.	.	1
" Chronic	1	9	3	2	8	.	1	1	12
Dermatitis Venenata	1	.	1	.	.	.	.	1
Dislocation, Ankle	1	.	1	.	.	.	.	1
" Hip	1	1	.	1	.	.	.	.	1
" Shoulder	2	2	3	.	.	1	.	4
Dupuytren's Contraction	2	1	.	3	.	.	.	3
Dysmenorrhoea	4	3	1	.	.	.	4
Eczema Rubrum	2	.	.	2	.	.	.	2
" Squamosum	1	.	.	.	.	.	1	1
" Vesiculosum	2	.	1	1	.	.	.	2
Endocervicitis	5	4	1	.	.	.	5
Endometritis	2	.	13	9	2	.	.	2	13
Epididymitis	1	.	1	.	.	.	.	1
Epithelioma, Clitoris	1	1	.	.	.	.	1
" Face	1	1	2	.	.	.	.	2
" Hip	4	.	3	1	.	.	.	4
" Mouth	1	.	1	.	.	.	.	1
" Penis	1	.	.	1	.	.	.	1
" Rectum	1	1	1	1	1	.	.	.	2
" Scalp	1	.	1	.	.	.	1
" Tongue	4	.	3	1	.	.	.	4
" Uterus	2	.	.	1	1	.	2
" Vulva	1	1	.	.	.	.	1
Epulis	2	2	.	.	.	.	2
Erythema, Multiform	1	.	1	.	.	.	1
Exostosis, Humerus	1	.	1	.	.	.	.	1
" Nasal Septum	1	.	1	.	.	.	.	1
Fibroma, Breast	1	1	.	.	.	.	1
" Molluscum	2	1	1	.	.	.	2
" Uterine	1	.	20	2	8	7	2	1	20
Fistula, Abdominal	1	.	1	.	.	.	.	1
" Coccygeal Dermoid	2	.	2	.	.	.	.	2
" Complete	1	6	1	5	2	.	.	.	7
" Incomplete	2	1	1	.	.	.	2
" Perineal	1	4	.	.	2	.	.	2	4
" Recto-Vaginal	1	.	1	1	.	.	.	.	1
" Thoracic	1	.	.	1	.	.	1
Fingers, Web	1	1	.	.	.	.	1
Foot, Splinter in	1	1	.	.	.	.	1
Floating Cartilage in Knee Joint	1	.	.	.	.	.	1	1

DIAGNOSIS	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Fracture of Acetabulum	1	..	..	..	..	1	1
“ Clavicle	1	..	1	..	..	..	..	1
“ Coccyx	1	..	1	..	..	..	1
“ Femur	5	2	4	1	..	1	1	7
“ “ Compound	1	1	..	1	..	..	..	..	1
“ Humerus	3	..	..	3	..	..	..	3
“ “ Compound	1	2	..	..	1	..	1	..	2
“ Jaw Lower	1	..	..	1	..	..	..	1
“ Nasal Bones	2	..	1	1	..	..	..	2
“ Patella	1	1	1	..	..	..	1	2
“ Pelvis	1	..	..	..	..	1	..	1
“ Radius	1	1	1	1	..	..	..	2
“ “ and Ulna	1	1	1	1	..	..	..	2
“ Skull	8	1	3	..	..	5	1	9
“ Tibia	13	..	10	2	..	1	..	13
“ “ Compound	1	..	1	..	..	..	..	1
“ “ & Fibula comp.com	9	..	3	..	..	3	3	9
Gangrene, Senile	1	1	..	..	..	..	1	..	1
Goitre	1	..	3	..	1	2	..	..	3
Gumma, Syphilitic of Knee	1	..	..	1	..	..	..	1
“ “ of Tongue	1	..	..	..	1	..	..	1
Haematocele	1	..	1	..	..	..	..	1
Haemorrhoids	3	2	5	..	..	..	..	5
Hare-lip	1	..	1	..	..	..	..	1
Hernia, Femoral	1	1	..	..	..	..	1
“ Inguinal, Incarcerated	1	..	1	..	..	..	..	1
“ “ Strangulated	2	..	..	..	..	2	..	2
“ Scrotal	2	..	2	..	..	..	..	2
“ Umbilical	1	1	..	..	..	..	1
Hydrocele	3	..	3	..	..	..	..	3
“ of Cord	1	..	1	..	..	..	..	1
Hydrosalpinx	1	..	1	1	..	..	..	..	1
Intestinal Obstruction	3	2	1	1	..	3	..	5
Leucorrhoea	1	..	1	..	..	..	1
Lipoma of Back	1	1	..	..	..	..	1
“ Breast	1	1	..	..	..	..	1
“ Face	1	1	..	..	..	..	1
Lupus of Nose	1	1	1	1	..	..	..	2
Lymphangitis	2	..	1	1	..	..	..	2
Masturbation	1	..	..	1	..	..	..	1
Menorrhagia	2	1	1	..	..	..	2
Morbus Coxi	1	3	6	..	7	..	..	2	9
Nasal Septum, Hypertrophy of	1	..	1	..	..	..	..	1
Necrosis of Femur	1	..	1	..	..	..	1
“ Finger, Last Phalanx	1	..	1	..	..	..	..	1
“ Ilium	1	..	..	..	1	..	..	1
“ Ischium	1	..	1	..	..	..	..	1
“ Jaw	1	1	2	..	..	..	..	2

DIAGNOSIS	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Necrosis of Nasal Bones . . . . .	..	1	..	..	1	..	..	..	1
“ Rib . . . . .	..	..	1	1	..	..	..	..	1
“ Tarsal Bones	2	1	2	1	1	..	..	1	3
“ Tibia	2	4	1	2	2	1	..	..	5
“ Ulna . . . . .	..	1	..	..	1	..	..	..	1
Orchitis . . . . .	..	4	..	3	..	..	..	1	4
Ovaritis . . . . .	..	..	3	2	1	..	..	..	3
Palate Cleft . . . . .	..	3	..	2	..	1	..	..	3
Papilloma of Larynx	1	1	..	..	..	..	..	1	1
Pemphigus	1	..	1	..	..	1	..	..	1
Perineum, Laceration of	1	..	8	6	..	1	..	1	8
Periostitis of Foot . . . . .	..	1	..	..	1	..	..	..	1
“ Humerus	1	1	..	1	..	..	..	..	1
“ Jaw . . . . .	..	1	..	1	..	..	..	..	1
“ Tibia . . . . .	..	3	2	3	2	..	..	..	5
Peritonitis, General . . . . .	..	..	1	1	..	..	..	..	1
“ Pelvic Chronic	1	..	16	3	9	2	..	2	16
“ Traumatic . . . . .	..	1	..	1	..	..	..	..	1
“ Tubercular . . . . .	..	..	3	2	1	..	..	..	3
Phimosis . . . . .	..	4	..	4	..	..	..	..	4
Phlebitis . . . . .	..	..	1	1	..	..	..	..	1
Polypus, Cervical . . . . .	..	..	1	1	..	..	..	..	1
“ Nasal . . . . .	..	..	1	1	..	..	..	..	1
“ Rectal	1	..	1	..	..	..	..	1	1
“ Urethral . . . . .	..	..	2	2	..	..	..	..	2
“ Uterine . . . . .	..	..	1	1	..	..	..	..	1
Pregnancy . . . . .	..	..	3	2	..	1	..	..	3
“ Extra-Uterine . . . . .	..	..	1	..	..	..	1	..	1
Psoriasis . . . . .	..	1	..	1	..	..	..	..	1
Purpura Hemorrhagica . . . . .	..	..	2	1	..	..	..	1	2
Pyelonephrosis . . . . .	..	..	1	..	1	..	..	..	1
Pyosalpynx	1	..	7	5	..	1	1	..	7
Rectum, Foreign, Body in . . . . .	..	..	1	..	1	..	..	..	1
“ Fissure of . . . . .	..	1	..	..	1	..	..	..	1
Salpingitis . . . . .	..	..	3	1	2	..	..	..	3
Sarcoma of Antrum . . . . .	..	..	1	1	..	..	..	..	1
“ Axilla . . . . .	..	1	..	..	..	..	..	1	1
“ Breast . . . . .	..	..	3	2	..	1	..	..	3
“ Forearm . . . . .	..	..	1	..	..	..	..	1	1
“ Gluteal Region . . . . .	..	1	..	..	1	..	..	..	1
“ Jaw . . . . .	..	..	2	2	..	..	..	..	2
“ Kidney . . . . .	..	1	1	..	..	..	2	..	2
“ Leg . . . . .	..	..	1	1	..	..	..	..	1
“ Neck, Melanotic . . . . .	..	..	1	1	..	..	..	..	1
“ Ovary . . . . .	..	..	3	1	2	..	..	..	3
“ Pelvis . . . . .	..	..	1	..	..	..	1	..	1
“ Testicle . . . . .	..	1	1	..	..	..	..	1	1
Spine, Irritable . . . . .	..	..	1	..	1	..	..	..	1
“ Potts Disease of	1	4	4	..	5	..	2	1	8
Synovitis of Knee . . . . .	..	5	..	3	..	..	..	2	5
Syphilis	2	8	7	..	10	2	..	3	15

DIAGNOSIS	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Talipes, Equino Varus	1	1	1	1	..	..	..	2
" Varus	3	1	2	2	..	..	..	4
Tendon, Rupture of Quadriceps Extensor	1	..	1	..	..	..	..	1
Testicle, Neuralgia of	1	..	1	..	..	..	..	1
" Tubercular	1	..	1	..	..	..	..	1
Tetanus	2	..	1	..	..	1	..	2
Tonsils, Hyperthrophy of	2	..	2	..	..	..	..	2
Tubercular, Ankle Joint	1	..	1	..	..	..	..	1
" Knee Joint	1	..	..	1	..	..	..	1
Turbinated Bones, Hypertrophy of	1	..	1	..	..	..	..	1
Ulcer of Foot	1	..	1	..	..	..	1
" " Perforating	3	..	..	3	..	..	..	3
" Hand "	1	1	..	1	..	..	..	..	1
" Leg, Varicose	4	13	12	14	8	..	..	3	25
" Rectum	2	3	..	4	..	..	1	5
" Stomach	1	1	..	..	..	..	1
" Toe, Perforating	1	1	1	1	..	..	..	2
Urethra, Neurosis of	1	..	1	..	..	..	1
" Rupture of	6	..	2	1	..	2	1	6
" Stricture of	2	19	1	18	1	..	..	2	20
" " Traumatic	1	..	1	..	..	..	..	1
" Ulceration of	1	..	1	..	..	..	1
Urethritis, Non-Specific	1	..	1	..	..	..	..	1
" Specific	4	..	4	..	..	..	..	4
Urine, Retention of	2	1	3	..	..	..	..	3
Uterus, Antiflexion of	2	1	1	..	..	..	2
" Prolapsus of	1	..	1	..	..	..	1
" Retroflexion of	3	..	8	4	2	..	..	2	8
" Retroversion of	1	..	1	..	..	..	1
Varicocele	3	..	3	..	..	..	..	3
Varicose Veins	1	..	1	..	..	..	1
Wound, crushing of Arm	2	..	1	..	..	1	..	2
" " " and Foot	1	..	1	..	..	..	..	1
" " " " Leg	1	..	1	..	..	..	..	1
" " Finger	1	2	..	1	1	..	..	..	2
" " Hand	4	..	1	2	1	..	..	4
" " Legs, both	1	1	..	1	..	..	..	..	1
" Gun-shot of Arm	1	..	..	1	..	..	..	1
" " Chest	1	..	1	..	..	..	..	1
" " Head	2	..	1	..	..	1	..	2
" " Leg	1	..	..	..	..	1	..	1
" " Scattered	1	..	1	..	..	..	..	1
" Incised of Back	1	..	..	1	..	..	..	1
" " Face	1	..	1	..	..	..	..	1
" " Foot	1	..	1	..	..	..	..	1
" " Leg	1	..	1	..	..	..	..	1
" Lacerated of Scalp	3	..	3	..	..	..	..	3
" Stab of Leg	1	..	1	..	..	..	..	1
	48	362	329	383	169	35	51	52	691

Ophthalmological and Aural.

DIAGNOSIS	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Burn of Eyes and Lids	1	..	1	..	..	..	..	1
Cataract	4	16	17	29	3	..	..	1	33
" Congenital	1	1	1	..	2	..	..	..	2
" Traumatic	1	3	1	2	1	1	..	..	4
Choroid, Melanotic Sarcoma of	1	1	..	..	..	..	1
Conjunctivitis	1	3	1	2	2	..	..	..	4
Cornea, Ulceration of	3	1	3	1	..	..	..	4
Cyclitis, Traumatic	5	1	6	..	..	..	..	6
Dislocation of Lens into Ant. Cham.	1	..	1	..	..	..	..	1
Embolism of Central Artery	1	..	..	..	1	..	..	1
Epithelioma	1	..	1	..	..	..	..	1
Foreign Body in Ant. Chamber	2	..	2	..	..	..	..	3
Glaucoma	1	1	2	..	..	..	..	2
Globe, Calcareous Degeneration of	1	..	1	..	..	..	..	1
" Penetrating Wound of	2	..	1	1	..	..	..	2
" Traumatism of	1	3	3	6	..	..	..	..	6
Irido-Cyclitis	1	1	2	..	..	..	..	2
Iritis, Serous	2	1	3	..	..	..	..	3
" Syphilitic	1	1	2	..	..	..	..	2
Keratitis, Interstitial	4	..	3	..	..	..	1	4
Lachrymal Duct, Stenosis of	1	..	1	..	..	..	..	1
Lenticular, Membrane, Opacity of	8	6	14	..	..	..	..	14
Orbit, Sarcoma of	1	..	..	1	..	..	..	1
Panophthalmitis	1	..	1	..	..	..	..	1
Pterygium	1	..	1	..	..	..	..	1
Retina, Detachment of	1	..	..	..	1	..	..	1
Retinitis	1	..	..	1	..	..	..	1
Strabismus Convergens	1	..	1	..	..	..	..	1
Trachoma	2	2	..	3	..	..	1	4
Vitreous, Hemorrhage into	1	1	..	..	..	..	1
Epithelioma of Ear,	1	..	1	..	..	..	..	1
Mastoiditis	1	..	..	1	..	..	..	1
Otitis Media	1	..	1	..	..	..	..	1
	8	72	39	89	15	3	..	3	111

Medical.

DIAGNOSIS	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Alcoholism	9	3	8	2	1	..	1	12
“ Chronic	2	..	..	1	..	1	..	2
Anaemia	1	..	5	2	2	1	..	..	5
Arterial Sclerosis	1	..	..	1	..	..	..	1
Arthritis Deformans	1	..	..	1	..	..	..	1
Asthma	1	..	1	..	..	..	..	1
Bronchitis, Acute	1	10	1	11	..	..	..	..	11
“ Chronic	2	2	1	2	..	1	..	4
Chorea	2	..	1	1	..	..	..	2
Colic	1	..	1	..	..	..	..	1
“ Biliary	2	..	2	..	..	..	..	2
Colitis	2	..	2	..	..	..	..	2
Debility, General	2	4	2	4	..	..	..	6
Diarrhœa Acute	1	6	3	9	..	..	..	..	9
“ Chronic	1	..	..	1	..	..	..	1
“ Tubercular	1	..	1	..	..	..	1
Empyema	1	..	..	1	..	..	..	1
Endocarditis	1	..	..	..	1	..	1
Enteritis, Membranous	1	..	..	..	1	..	1
Epilepsy	1	1	..	2	..	..	..	2
Gastralgia	1	1	..	..	..	..	1
Gastritis, Acute	7	1	6	1	1	..	..	8
“ Chronic	1	..	..	1	..	..	..	1
Gastro-Duodenitis	1	2	2	1	..	..	..	3
Hemorrhage, Cerebral	2	4	1	..	1	..	4	..	5
“ Pulmonary	1	..	..	..	1	..	..	1
Hepatitis, Acute	2	..	2	..	..	..	..	2
“ Interstitial	1	..	..	..	..	1	..	1
Hydrocephalus	1	..	..	1	..	..	1
Hysteria	5	..	5	..	..	..	5
Hystero-Epilepsy	1	1	..	1	..	..	1	2
Inanition	3	1	3	1	..	..	..	4
Indigestion, Intestinal	1	1	1	1	..	..	..	2
Insolation	3	..	3	..	..	..	..	3
Intermittent Fever	1	1	2	..	..	..	..	2
Melancholia	1	..	..	1	..	..	..	1
Nephritis, Interstitial, Chronic	1	4	2	..	3	..	3	..	6
“ Parenchymatous, Acute	3	..	2	1	..	..	..	3
“ “ Chronic	1	3	1	..	1	1	2	..	4
Neuralgia, Facial	2	..	..	2	..	..	..	2
“ “ Ulna Nerve	1	1	..	..	..	..	1
Neurasthenia	2	5	10	3	8	2	..	2	15
Neuritis, Multiple	2	..	1	..	..	1	2
Oedema, Glottis	1	..	1	..	..	..	..	1
“ Pulmonary	1	..	..	..	..	1	..	1

DIAGNOSIS	IN HOSPITAL JAN. 1, 1892	ADMITTED		DISCHARGED				IN HOSPITAL JAN. 1, 1893	TOTAL
		MALES	FEMALES	CURED	IMPROVED	UNIMPROVED	DIED		
Paralysis, Lead	1	..	1	..	..	..	..	1
Pericarditis	1	1	..	..	..	2	..	2
Phthisis	2	8	1	..	5	3	..	1	9
Pleuritis	4	1	1	3	..	..	1	3
Pneumonia	5	1	4	..	..	1	1	6
“ Broncho	1	1	..	2	..	..	..	2
Poisoning, Paris Green	1	..	..	..	1	..	1
“ Tartar Emetic	1	..	1	..	..	..	..	1
Rheumatism, Acute Articular	12	9	15	5	..	..	1	21
“ Chronic	6	..	..	5	..	1	..	6
“ Gonorrheal	1	..	1	..	..	..	..	1
Sciatica	1	..	..	..	..	..	1	1
Taenia	1	..	1	..	..	..	..	1
Typhoid Fever	1	17	5	17	..	..	3	2	22
	12	149	73	108	68	11	23	12	222

(To be continued.)

Salt-Water Enemata in Haemorrhage.—Dr. R. F. Gill, of London, regards these as a very good substitute for intravenous injection of salt-water in cases of grave hæmorrhage. In 1888 he published an account of a patient who was apparently dying from post-partum hæmorrhage, but who he firmly believed owed her life to the enemata, the immediate effects of which were striking. Since then the author has repeatedly seen the method used in cases of large losses of blood at the University College Hospital; he considers it particularly valuable to the medical man attending midwifery cases because so few practitioners carry the necessary apparatus for the venous transfusion, and because it is extremely difficult when the patient is throwing herself about (and perhaps loosing blood all the time) and one is singlehanded, to perform the latter delicate operation; whereas the enema can be prepared by the nurse, while we control the uterus,—the injection being made without relaxing our attention to the fons et origo of the mischief. Small injections (4-6 fl. oz.) are preferred by the writer, inasmuch as no risk is run in exciting the bowel to expel its contents; the injections are repeated every fifteen minutes until the patient can retain liquids given per os, when both means may be continued as long as necessary.—*The Lancet*.

THE Albany Medical Annals

JOURNAL OF THE

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HOWARD VAN RENSSELAER, M. D., EDITOR.

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ANNOTATIONS.

Lawson Tait on the Treatment of Peritonitis.—Years ago I was driven to the determination to discontinue the use of opium by the mouth after abdominal operations, for two reasons: First its action on the intestines is most certainly to modify and even suspend vermicular movements; and secondly, it masks the real condition of the patient. One dose of morphine given under the skin immediately after the operation, is all that my patients ever get, and the bulk of them do not get that.

Regarding the intolerable thirst that follows the opening of the peritoneal cavity, I have come to look upon it not as an indication for the administration of fluids, but rather for withholding them. Ice is one of the things that should be banished absolutely from the sick-room. It never acts in any other way than to increase thirst.

Again, if nausea sets in on the third or fourth day, or at any time after, all food (and in that I include water) is absolutely stopped for twelve hours or even longer if necessary. I was driven to this by the uniform experience that all drugs employed for the arrest of vomiting were absolutely futile; that any food given came back only altered by biliary admixture. Further I was influenced by the perfect certainty that nothing could possibly be digested or absorbed by the stomach so long as bile was being poured into it.

I have therefore a belief that the starvation and withholding of fluid prevents the mechanical stasis of the circulation in the intestinal coats, which appears to me to be the initial stage of the fatal process of peritonitis, and this preventive measure I endeavor to assist by stimulating the peristaltic movement. I have tried a vast number of different kinds of enemata—some suggested by own thought and others suggested by ingenious friends—but I have always gone back to soap and turpentine. It is the business of any nurse watching one of my abdominal sections to note every six hours a set of four conditions—the pulse, the temperature, the occurrence of distension, and the passage of flatus per anum. So soon as the latter is freely and naturally established our anxiety ends, though our watchfulness is unremitting. The want of such passage for twenty-four hours after an operation, especially if accompanied by the slightest suspicion of distension, is dealt with without fail by the nurse herself on her own responsibility, by the administration of a turpentine enema. If the turpentine does not answer the nurse reports, and a mild saline purgative is ordered—generally a seidlitz powder—and this is repeated every four hours until it acts. If the distension increases we never rest until we have had the bowels moved, and then our anxiety is nearly always at an end and our efforts rewarded by recovery. But above all things there must be no time lost, and nobody who may be called into consultation by anxious friends must be permitted to write a prescription and try some favorite mixture.

When called into a case of well established peritonitis I always urge a trial of this treatment, because the stage may not have passed at which it may still be effective, but the chances are that it has. I have never said that the purgative treatment will cure peritonitis, for peritonitis once it is completely established, is a practically incurable disease, and almost uniformly fatal. Of this I am certain, if you subject the patients (not the peritonitis) to the purgative treatment, the number who will go on to incurable peritonitis will be fractional compared to what will be the results if they are left alone or submitted to any other treatment.

The practical outcome of any empirical experience is this, that the purgative treatment of peritonitis or threatening peritonitis, if it be promptly brought to bear on the case, will gain the all important time, which will eventually turn the scale in the favor of the patient.—*British Medical Journal*.

Medicinal Value of Fruits.—It should not be understood that edible fruits exert direct medicinal effect. They simply encourage the natural processes by which the acids are brought about. Under the category of laxatives, oranges, figs, tamarinds, prunes, mulberries, dates, nectarines and plums may be included, pomegrates, cranberries, blackberries, sumachberries, dewberries, raspberries, barberries, quinces, pears, wild cherries and medlars, are astringent; grapes, peaches, whortle berries, prickly pears, black currents, and melon seeds are diuretics; gooseberries, red and white currents, pumpkins and melons are refrigerants; and lemons, limes and apples are refrigerants and stomach sedatives. Taken in the morning an orange acts very decidedly as a laxative, sometimes amounting to a purgative, and may generally be relied on. Pomegranates are very astringent, and relieve relaxed throat and uvula. The bark of the root, in the form of a decoction, is a good anthelmintic, especially obnoxious to tapeworms. Figs split open, form excellent poultices for boils and small abscesses. Strawberries and lemons, locally applied, are of some service in the removal of tartar from the teeth. Apples are correctives useful in nausea, and even sea-sickness, and the vomiting of pregnancy. They immediately relieve the nausea due to smoking. Bitter almonds contain hydrocyanic acid, and are useful in simple cough; but they frequently produce a sort of urticaria, or nettlerash. The persimmon, or diospyros, is palatable when ripe; but the green fruit is highly astringent, containing much tannin, and is used in diarrhoea and incident dysentary. The oil of the cocoanut has been recommended as a substitute for cod-liver oil, and is much used in Germany for phthisis. Barberries are very agreeable to fever patients in the form of drink. Dutch medlars are astringent and not very palatable. Grapes and rasins are nutritive and demulcent, and very grateful in the sick-chamber. A so-called "grape cure" has been much lauded for the treatment of congestion of the liver and stomach, enlarged spleen, scrofula, tuberculosis, etc. Nothing is allowed but water and bread and several pounds of grapes per diem. Quince seeds are demuculent and astringent; boiled in water they make an excellent soothing demulcent.—*Weekly Review.*

The Value of Aristol in Catarrhal Affections.—During the final days of winter and the early days of spring when catarrhal affections of the respiratory passages are an equal source

of worry to physician and patient, Aristol does excellent work. Dr. Porteous writes (*Am. Therapist*); "Aristol is post-nasal catarrh and hay fever has acted well in my hands. After thoroughly douching the nasal and post-nasal passages, also the pharynx, with some antiseptic lotion, I apply to all available parts the powder. In no cases have I seen failure." Aristol has been equally successful in catarrhal maladies of the ear, even after the lesion has progressed into the most unsatisfactory morbid conditions. Dr. W. Byrd Scudder writes (*Ed. Med. Jour.*, Jan. '93): "In a suppurating middle ear where most of the membrana tympani has sloughed away, Aristol may be blown in to perfectly coat all unhealthy tissue. I used it in a case of necrosis of the bones of the canal with excellent results." Dr. R. H. Gibbons recommends Aristol (*Times and Register*, Dec. 10, 1892), in a great variety of conditions calling for surgical treatment. He adds: "I have resorted to the use of Aristol in the dressing of surfaces in the cavities of the body, those of the ear, the nose, the vagina and the rectum." His results, he writes, "have been satisfactory to an extreme degree."

A New Method of Treating the Apparently Drowned.

In two cases reported to the Academy of Medicine of Paris, July 5, 1892, in which it seemed that all hope of resuscitation were lost, M. Laborde succeeded in saving life. His plan, which has been involved in laboratory experiments on animals asphyxiated by chloroform or chloral, is to draw out the tongue and jerk it rhythmically. This produces an artificial hiccough, which excites the diaphragm to contract, and the heart to resume its function, with the restoration of respiration and circulation. At the same time, the epigastrium should be fomented with scalded water, even to blistering.—*L'Union Medicale*.

A Modern Method of Medication.—Among the many methods of administering medicaments, the soluble elastic gelatin capsule is growing to be one of the most popular.

There are many efficient but unpalatable medicaments which may be readily exhibited in this way, without offending the palate of the most sensitive patients, and capsules are much easier to swallow and more soluble than pills.

Few physicians are aware of the many medicaments that are now administered in this way. Among these one need only mention the following to indicate the wide application of this method of giving numerous drugs:

Apiol, balsam fir, balsam peru, cascara sagrada, castor oil, castor oil and podophyllin, chaulmoogra oil, cod-liver oil, cod-liver oil and creasote, cod-liver oil and iodine, cod-liver oil and iodoform, cod-liver oil and iron, cod-liver oil and phosphorus, copaiba, copaiba and cubeb; copaiba, cubeb and buchu; copaiba, cubeb and iron; copaiba, cubeb and matico; copaiba cubeb, matico and sandal; copaiba, cubeb and sandal; copaiba, cubeb and sarsaparilla; copaiba and iron; copaiba cubeb and turpentine; copaiba sandal and creasote (beechwood), 1 minim; eucalyptus oil, gurjum balsam; linseed oil; liquor sedans; male fern and kamala; nitroglycerine, 1-100 grain; oil of pennyroyal; pichi extract; salol; tar, purified; valerian oil; Warburg's tincture; wintergreen oil; wormseed oil; quinine muriate and sulphate.

Of extra sized elastic-filled gelatin capsules there are castor-oil, $2\frac{1}{2}$ to 15 grammes; cod-liver oil, $2\frac{1}{2}$ to 15 grammes; male fern and castor oil; santolin and castor oil.

Messrs. Parke, Davis & Co., were among the first to make this method popular, and will be pleased to afford physicians interested all desired information concerning this agreeable method of medication.

How to Poultice the Ear.—Poulticing an ear may seem to be a simple operation, but there is, nevertheless, a right and wrong way of doing it, and it appears that the wrong way is the one usually adopted. At least so says Dr. Albert H. Buck, of New York, in an article on aural therapeutics in the March number of the New International Medical Magazine. Dr. Buck says that while heat is one of the best remedies in painful inflammations of the middle ear and the poultice is one of the best methods of applying heat, as usually put on the poultice has little effect. What should be done, he says, is first to fill the external auditory canal with lukewarm water, the head resting on the unaffected side upon the pillow. Then a large flaxseed poultice is applied over the ear as hot as can be borne. The column of water is thus kept warm and acts as a conductor of heat between the poultice and the inflamed surface.—*N. W. Lancet*.

Adulteration of Iodoform Gauze.—In an article signed L. & D. (Bull. Commenc., 1892, 186) attention is called to a peculiar sophistication of iodoform gauze. The gauze examined was marked 30 per cent, but on analysis showed only 8 per cent; the deficiency in color was made up with a nitro derivate of phenol.

To look for this adulterant it suffices to treat the gauze with water when, if it be present, a yellow colored solution results, yielding on evaporation a golden yellow residue which, after being fused over charcoal, will not color ether and has lost its bitter taste. Properly prepared iodoform gauze should yield no coloring matter to water.—*Am. Journal Ph.*

Acetanilid as a Conservative Substance for Hypodermatic Solution.—Thomas J. Keenan recommends acetanilid to replace all other substances, as glycerine, alcohol, chloroform, salicylic acid, boric acid, etc., used to prevent alteration and decomposition in solutions for subcutaneous injection. Acetanilid is superior to all the substances mentioned, in that it conserves the solutions even when added in minute quantities without modifying in any way the action of the medicine to be employed.—*Pharmaceutische Zeitschrift fur Russland.*

Obituary.

DR. ANTHONY P. TEN EYCK.

MR. PRESIDENT:

In offering the following resolutions, I wish to pay my tribute of respect to the memory of our departed friend and professional brother, Dr. Anthony P. Ten Eyck.

We were natives of the same town, Bethlehem, in this county. During Dr. Ten Eyck's student life I saw him frequently, and I predicted for him an honorable and successful future. He came from a family excellent in morals and religion. His early training and education peculiarly fitted him for a useful, industrious and respectable citizenship. He was graduated from the Albany Medical College in 1866, and I believe immediately after located in Blooming Grove, a short distance from Bath-on-the-Hudson, Rensselaer County. Here, by close attention to his profession he acquired a very good practice.

Doctor Ten Eyck was a man of good address, affable in manners, and true to his friends; and judging from the consultations I had with him I regarded him a well qualified and good physician.

He died February 4th, 1893, *phthisis pulmonalis*.

Your committee offer the following resolutions:

RESOLVED: That we receive with sadness the intelligence of the death of Dr. Anthony P. Ten Eyck, whose professional courtesy and genial manners made for him a warm place in our sympathies.

RESOLVED: That in this visitation the community in which he lived and practised his profession has lost an excellent physician and valued friend.

RESOLVED: That a copy of these resolutions be transmitted to the family of the deceased, and be transcribed on the minutes of this Society.

Wm. N. Bailey,
A. Vander Veer,
T. F. C. Van Allen,
Committee.

Albany, N. Y., 15th Feb. 1893.

REVIEWS AND BOOK NOTICES.

Ptomaines, Leucomaines and Bacterial Proteids, or The Chemical Factors in the Causation of Disease. By Victor C. Vaughan, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry in the University of Michigan, and Director of the Hygienic Laboratory; and Frederick E. Novy, Sc. D., Assistant Professor of Hygiene and Physiological Chemistry in the University of Michigan. Second edition, revised and enlarged. Lea Brothers & Co., Philadelphia, 1891.

Within a very short time the theories as to the way in which pathogenic bacteria produce the peculiar specific diseases ascribed to them have gradually become much modified or have completely changed. Leading Bacteriologists for a long time considered the action of bacteria to be mechanical, and that the peculiar pathogenic process set up in the various tissues was due to the mechanical interference excited by their presence.

But while this theory was generally accepted by bacteriologists, physiological chemists were attacking the problem in an entirely different manner; and the light that they have thrown on the subject by their investigations of the poisons formed during the decomposition of organic matter through the agency of bacteria, has convinced most disinterested thinkers that the diseases proved to be due to bacterial origin are produced by the poisons elaborated by these micro-organisms and circulating in the system, and not to be mechanical irritation of the bacteria themselves.

To bring together and discuss all the material bearing on this topic which has appeared in the various magazines, monographs and reports this book has been compiled.

The author after explaining what potomaines and leucomaines are and presenting an historical sketch of the bacterial poisons, gives an account of the bodies capable of producing morbid symptoms which have been extracted from various foods, as ham, canned meats, milk, etc. Somewhat later he discusses the bacterial products of many of the infectious diseases, and then devotes a large part of the book to the methods of extracting these bodies from different substances, together with their chemical composition and resemblance to various vegetable alkaloids.

This part appeals strongly to the physiological chemist but is almost too abstruse for the average medical practitioner, while the names even, given these compounds are difficult enough to make one's head swim.

Three chapters on the general considerations of the relation of bacterial poisons to infectious diseases, the nature of immunity-giving substances and the germicidal proteids of the blood, are most interesting and instructive; and give moreover a clear and general oversight of our present knowledge of these complex bodies.

To those desiring scientific information on these subjects this is the best treatise in the English language.

Manual of Practical Medical and Physiological Chemistry.—By Charles E. Pellew, E. M., Demonstrator of Physics and Chemistry in the College of Physicians and Surgeons (Medical Department of Columbia College), N. Y. Honorary assistant in chemistry at the School of Mines, Columbia College, etc. With illustrations. D. Appleton & Co., New York, 1892.

This manual is hardly adapted for a student to use for self-study in his own house, as it evidently pre-supposes either a general acquaintance with chemistry and laboratory work, or else a competent instructor to amplify and explain the lessons given. Another reason that would deter the individual from following the lessons at home would be the expense of obtaining the necessary apparatus and reagents.

But for the purpose for which it is intended, namely as a working guide for experiments in medical and physiological chemistry, under skilled instruction in a well equipped laboratory, this is a most concise and intensely practical manual, and one that is thoroughly abreast of the times and includes all the most valuable of the newer tests.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received.

Some Physiological Experiments with Magnets at the Edison Laboratory. By Frederick Peterson, M. D.

Arterial Saline Infusion. By Robert H. M. Dawbarn, P. D.

The Choice between Extirpation and Colotomy in Cancer of the Rectum. Charles B. Kelsey, M. D.

A Clinical Study of Eleven Cases of Asiatic Cholera treated by Hypodermoclysis and Enteroclysis. By Judson Daland, M. D.

The Physician, his Relation to the Law, and the Legal Rules Governing the Collection of his Fees. By H. G. Blaine, A. M., M. D.

Gastrostomy in Carcinoma of the Cardiac Orifice. By Emory Lanphear, M. D., Ph. D.

Fel Bovinum as a Therapeutic Agent. By D. H. Bergey, M. D.

Resume of Electro-Therapeutics.

Abscess Around the Rectum. By Charles B. Kelsey, M. D.

The Cosmetic Surgery of the Nose. By John B. Roberts, M. D.

Tumor of the Liver in which Removal was Attempted. By John B. Roberts, M. D.

Intra-Cranial Neurectomy of Second and Third Divisions of Fifth Nerve. By John B. Roberts, M. D.,

Piperazin in the Treatment of Stone in the Kidney. Report of Cases. By David D. Stewart, M. D.

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Buried or Burned, Which?*

By A. T. VAN VRANKEN, M. D.

MR. PRESIDENT AND GENTLEMEN:

The province of the physician is so clearly one which has to deal only with the body, and its condition before death, that a discussion of its disposition after dissolution, would at first sight, appear ill-timed and out of place. As sanitarians however, it is as much our bounden duty to prevent disease as it is to heal.

The theologian, with the mist of immortality dimming his vision says, after death—what? The physician, whose scientific eye scans the hygienic horizon and discerns therein the possibility of preventable disease, says, after death, which—buried or burned?

In our day and generation this question which heretofore excited only our curiosity, now presses itself upon us in a manner which like Banquo's ghost, will not "down." Over crowded and densely populated cities and localities for the living, and cemeteries equally so for the dead; the sources of water supply loaded and contaminated by emanations and pollutions from putrefactive animal matter will, in the near future, force the solution of this problem of the disposal of the dead upon very many of our health boards and sanitary societies. To physicians, as presumably educated

*Read before the Medical Society of the County of Albany, March 8th, 1893.

men, this question will undoubtedly be referred for final settlement. Are we ready for it? Anticipatory of this, my object in considering this grewsome subject is for the sole purpose of inviting serious thought along the line of sanitary and scientific disposition of the dead.

Two methods only, those now commonly practiced in civilized countries, can claim our attention, viz.: that of burial in the sea or on land, and cremation or incineration. These we will consider in the order named. It goes without saying, that the present custom of refined Christian burial, so-called, is grossly unscientific and if specifically designed and arranged for such purpose, could not better advance or fulfil the condition necessary to breed pestilence or infectious diseases, than by the continued use of present methods. Take for instance a case from every-day life. A body is to be prepared for burial. The undertaker and embalmer, for nowadays every undertaker is, in name at least, an embalmer, throws into its cavities an embalming fluid in quantities varying from one to four quarts, the principal ingredient of which is arsenic or its allied compounds whose action is to arrest as far as possible, the putrefactive process. This feature completed, the body is clothed in garments not unlike those worn in life, and placed in a casket of heavy pine, cedar, oak or mahogany, often lined with sheet lead or zinc, and hermetically sealed, which is now farther encased in a still heavier outer casket before mother earth receives it as her own. Under these circumstances, the decomposition or oxidization of a body is most seriously and dangerously delayed, and in most cases, a condition which ought to be reached in twelve or fourteen months, is delayed or retarded for quite as many years. It is well for us just here to revive our misty knowledge of organic chemistry and note the changes which must necessarily occur; although this process is greatly hastened or retarded by the nature of the surrounding soil, low damp ground hastening the decomposition, and dry, high and well ventilated ones retarding it.

Scientifically as well as scripturally speaking, the buried body must return to its elements. Assisted oftentimes by other forms of life, carbon-dioxide, ammonia, carburetted, and sulphuretted hydrogen, and many complex gaseous products often excessively fetid, are generated, all of which in time are oxidized into simpler combinations.

Imagine now if you please, this process going on in the 4,000 interments annually made within a radius of 8 miles of Albany, and a faint conception can be formed of the saturation of the earth with putrefactive gases until, rendered incapable of further absorption, the adjacent streams and surrounding atmosphere thus poisoned, finds its polluted way to the hearts and homes of men. This is not an overdrawn picture. Its frequent and ever present condition, however, has so blunted our sensibilities that, lulled into fancied security, we scientifically sleep, on and on, regardless of the unseen, but no less real danger.

At this point, however, the disciple of burial reform is confronted by an imaginary, but no less formidable and almost insurmountable obstacle. Sympathy and affection bind hearts together when living, which bonds are intensified to a superlative degree of worship, after death; and any system or procedure which in anyway trespasses upon either of these feelings, naturally arouses antagonism and bitter opposition. Customs centuries old, add their sanction as well, and offer equally serious impediments to any intimation of burial reform.

To my mind, these objections cannot be disregarded or ridiculed, but must be met by intelligent argument, the sober good sense of the community must be appealed to, and prejudices removed on rational grounds by scientific men, backed by scientific arguments, which cannot be overcome. This, of course, cannot be done in a day, or year, or perhaps century; but can and will be no less certainly accomplished by educating the masses gradually up to this point. Fashion, we regret to say, has its post mortem, as well as ante mortem votaries; and it is not extravagant to say that possibly, the near future may see some reforms instituted from this motive

only. Such reforms, however, necessarily would be short lived. Nothing can be permanent which is not practical, and for a solution of this problem, the question arises. How can we bury our dead, if bury them we will, so that their clay and now useless tenement will least injure the living as the process of oxidization is taking place? My answer is emphatically and earnestly, lay aside all the gaudy and solid paraphernalia with which you now surround them, and which so greatly hinders and retards rapid decomposition. Take a lesson from our Hebrew friends in respect to dressing the dead: enwrap their bodies only with a linen covering pure and white, encase them in a single casket of wicker or basket work or papier-mache, if the appearance of solidity is desired, and then, freighted with your prayers, "Let their dust return to the earth as it was, and the spirit return to God who gave it." In this manner the almost immediate contact of the particles of earth and soil, that greatest and best of disinfectants and deoderizers, at once absorbs the putrescent gases of decomposition, and the danger of water and air contamination while by no means removed, is vastly lessened.

The ideal mode, however, of rapid oxidization of animal matter, human or otherwise, is to my mind, cremation. In thus taking a position on this burning question of the hour, I am aware I will not be in touch with many members of this venerable society, and the world at large. However greatly this is to be desired, its absence will not deter me from a free expression of opinion. The moral easy man of the world, with the certainty of bodily cremation immediately after death, and the possibility of soul contact with a similar process later on, naturally objects most strenuously. Sentimentalists, shocked at the thought of themselves or their loved ones being burned as beasts, revolt at the suggestion, and with raised hands cry out in holy horror at a process against which they can bring no logical argument, and which they loudly assert is a relic of Hindooism. Could these well meaning people witness the condition of a body as it is ordinarily found, a few months or years after burial, I think their objection to cremation would be forever removed.

Our theological friends, many of them at least, set up for discussion, a cremation man of straw, and in the first round, with many protestations of pulpit pounding, knock him out with gloves whose principal and only padding is "unscriptural." With these latter gentlemen I will have no argument. Rent as they are in modern theology, by pleas for higher criticism and cultured creeds, they certainly can or ought not, take any exception to an ungodly profession, as we are supposed, on general principles to be, should we, in a scientific sense, make a liberal translation of holy writ on these grave topics.

The only valid objection that its opponents have thus far brought against cremation, is the old and ever recurring one of destroying any or all evidence of crime. With the smallest amount of ordinary precaution prior to the final disposition of a body, this objection can be so nearly removed, as to render its presence as a factor against cremation, practically unworthy of serious consideration.

To my mind, the largest and most widely prevalent objection to incineration, is based upon an excusable ignorance of the process and the surroundings by which it is accomplished. To remove this, I perhaps can not more fittingly close this paper than by inviting you in imagination or reality, to visit with me, the beautiful Earl Crematory in Oakwood Cemetery at Troy. This noble building erected in 1889 by a wealthy Trojan as memorial to his son, at a cost of \$175,000 stands unique to day among similar institutions, and is undoubtedly the most perfect apparatus of its kind in the world. The crematorium is under the same roof, and stands as an annex to the Earl Memorial Chapel, where the burial services if so desired are conducted. When the services are over the bier upon which the body rests is drawn silently through a doorway into the retort-room, and the incineration takes place privately, the ashes being placed in an urn to be disposed of as the body would have been, under direction of the undertaker and friends of the deceased. The Venini system of incineration is used at the Earl crematory. The body on the

terra-cotta trough, wrapped in a linen sheet soaked in a solution of alum-water, slides through an open door into the retort from the rolling bier, the track for which leads from the room where the remains are taken from the coffin, through the chancel, into the retort room and to the door of the retort which is then closed. In the basement is a gas-generator which is a simple fire-pot about four feet in vertical measurement, and two laterally. The air for combustion is admitted through a grate in the bottom, and is not sufficient to allow of the combustion of the entire mass of small wood which is heaped on the fire. The result is, that the fire at the bottom distills the wood at the top and the gases of distillation and combustion of wood are carried to the back end of the incinerating chamber which is on the floor above and there ignited. The body is not touched by the flames from the wood fire, the process of incineration being completed by the burning gases in the flues and retort. When the operation is completed, the door is opened and the terre-cotta trough is withdrawn from the retort. The ashes are then gathered from the trough and placed in an urn or whatever receptacle has been provided.

You will thus notice that, contrary to the ordinarily conceived ideas of the process of cremation, the body is not placed in a roaring fire, neither does it of itself burn, but is consumed by the combustion of distilled gases largely the product of its own animal matter, at a temperature of 2,500 degrees. Usually this process requires about two hours for its completion, although an adult has been incinerated at the Earl Crematory in 75 minutes.

In England, this question of over-crowded cemeteries has become so serious as to force parliament to its consideration, and a bill has recently been introduced into that body looking toward the enactment of such laws as will render incineration imperative, in some localities.

In our own country the necessity for such radical measures is probably not yet demanded by actual conditions; although the existence of a law, making cremation obligatory upon

the bodies of those who died from infectious or contagious diseases—would in my opinion be wise.

In conclusion, I do not hesitate to express the opinion that the time for the public acceptance of cremation has probably not yet arrived: and my paper to-night is quite unlikely to be productive of many new converts. Still, I firmly believe that it offers the only solution of the great problem of scientific sanitation, as related to the disposal of the dead.

Three Cases of Shoulder Presentation, Illustrating the Value of Knee and Breast Position.—

Case of Quadruplets.

By J. T. SHILAND, M. D.

GENTLEMEN:

These three cases are presented as illustrating what may be accomplished by means of position, in cases where at first sight or examination the more difficult operation of podalic version seems to be the only means of effecting delivery.

All three cases show clearly how important it is that early competent medical aid should be secured, and case one the fatal result of delay.

CASE I. I was summoned to attend Mrs. C., age thirty-six, multipara, at seven A. M.

On examination I found the shoulder firmly impacted in pelvic canal, arm in vagina and hand between the mother's thighs; on making inquiry I learned that the woman had been in labor all night and had had quite severe labor pains all day previous, and that the waters had ruptured about four o'clock on the afternoon before my visit. A midwife had been in attendance during this time.

After making a few ineffectual attempts to remedy the position, I determined that turning was the only method of delivering her, and as she was in a very weak and exhausted physical condition, I sent for Dr. Herrick to assist me; he responded at once, and patient was placed under the influence of an anæsthetic and I proceeded to attempt to turn.

The uterine contraction was tremendous, completely paralyzing hand and fingers, and after considerable trouble I succeeded in bringing down one foot, but not secure the other.

By this time my hand was completely helpless, and Dr. Herrick attempted to finish the operation, but all effort by him and myself was futile, and after working nearly two hours we determined upon taking the child away piecemeal.

As the woman was by this time in a deplorable condition, we decided to send for Dr. Ferguson, who responded in about half an hour.

Both arms were disjointed and removed, and by the aid of strong traction forceps the leg which I had secured was brought down far enough so that the finger could be pressed into the groin of the other side, and then the final delivery was accomplished.

The patient came out from the anæsthetic but died in about an hour after from exhaustion and shock.

Now in this case the woman lost her life from ignorance and delay. Had she been seen before the rupture of the amniotic sac, or soon after, there is no doubt in my mind that the position could have been remedied, or the turning accomplished without difficulty, but after a whole day and night of severe labor, her strength was completely exhausted, and the uterine walls were so closely applied to the child and the contraction so strong, that turning proved impossible.

This woman in her previous pregnancy, had never required the services of a physician, always depending on a midwife.

CASE 2. Mrs. G., age thirty, multipara, five children previously, all labors natural.

Called November 7, 1892, to see Mrs. G., Monday, 10:00 A. M., found shoulder presenting, arm in vagina, hand between mother's thighs.

Placed her on knees and breast against bed, buttocks high and shoulder low as possible; after a few minutes of manipulation succeeded in placing arm in hand pushing up shoulder and bringing down vertex, after which the delivery was soon accomplished.

In this case patient had been losing water from Saturday evening, but child was still movable and uterine contraction did not materially interfere with correcting the position.

CASE 3. Was called on the 18th of November about midnight to assist Dr. Zeh, in attending Mrs. T., age thirty-eight, multipara, weighing three hundred and twenty-five pounds, adipose tissue on abdomen enormous.

Dr. Zeh had been with her for several hours; when he first examined her after the rupture of bag of waters, found shoulder presenting, arm in vagina and hand between mother's thighs.

At any attempt to apply forceps, the shoulder and arm at once entered the cavity.

The child's position in this case was normal before the rupture of the sac, but on account of the excessively large amount of amniotic fluid, the shoulder and arm was washed down, the doctor not being present at time of rupture.

We at once placed her in the knee and breast position, and after some trouble I thought the position all right, but as soon as she lay on her back the same condition of affairs prevailed.

We allowed her to rest a few minutes, and decided to resort to turning by the feet, but before doing this we decided to make another attempt to bring the vertex into position.

For this purpose we got her on to the floor, which, I assure you, gentlemen, was no easy undertaking; after getting her in position I made another attempt introducing the whole hand, and this time had the pleasure of forcing the chin down on the chest and bringing the vertex into position. when the labor was shortly accomplished.

The child was delivered alive and was enormous, weighing fifteen pounds. Instruments assisted partly in the delivery.

One of this woman's labors was a breech, and another a similar condition of affairs to that which I have described, at which time the delivery was accomplished by turning, and child was born dead.

Now, gentlemen, these cases demonstrate to my mind, the propriety in all such cases of shoulder presentation of attempt-

ing to bring the vertex into position by the aid of the knee and breast position. By so doing three important things were accomplished: first, the danger to the life of the child is greatly diminished; second, the necessity of administering an anæsthetic is obviated; third, the danger of placental detachment and consequent hemorrhage is avoided, and there is no danger of injury to the mothers parts and no resultant shock, all of which are complications greatly to be lamented.

A Case of Quadruplets.

About four years ago I was summoned to attend Mrs. W., age twenty, in her first labor of sixth month of pregnancy.

On examining her I found the os fully dilated, and as pains were strong and regular I ruptured the membranes, and after a few sharp pains she was delivered.

On again introducing my finger it came in contact with another bag of water, thinking it to be a twin pregnancy, I ruptured the sac and second foetus was born; I then proceeded to deliver the after-birth, but to my surprise found another amniotic sac, this I ruptured and the child soon followed.

Things were beginning to look interesting, and I again examined and to my astonishment found another bag of waters which I ruptured, and the foetus came promptly into the world.

By this time I was prepared for most any number, and visions of six or more floated through my brain, but four proved the extent of her powers, and at the next examination my finger came in contact with the placenta, which came away very readily.

In this case there was one placenta containing four distinct and separate amniotic sacs, and each foetus had separate umbilical cords.

The foetuses were all of good size for the period of utero gestation, two of them measured nine and one-half inches and two of them eight and one-half inches. Their combined weight being about six pounds.

As to the cause of premature labor, I judge it to be due to excessive overwork at the sewing machine.

This woman has been pregnant twice since, each time the pregnancy being single.

The husband was a small man, being only about five feet high, weighing about one hundred and twenty pounds, and the mother a trifle taller and slight build.

The Sanitary Condition of the State.*

At the beginning of the year an epidemic of influenza, or la grippe, was in existence, having begun during December, 1891. This was the third recurrence of this extraordinary disease since its first appearance at the close of 1889. The first epidemic, which occurred suddenly, caused 5,000 deaths; the second came gradually, reaching its height in April, 1891, and causing 8,000 deaths; the third was likewise of long duration, reaching its highest point in January of 1892, and caused 8,000 deaths. The largest number of deaths ever recorded in this State occurred in the months in which these three epidemics respectively reached their acme; during these months the very high rate of mortality of thirty per 1,000 population annually was reached.

A recurrence of the disease at the close of the year has been reported, but it has been in such mild form as not to materially affect the death rate. This gives reason to anticipate that this extraordinary pandemic has practically run its course. At a low estimate it has caused 21,000 deaths in this State since its first appearance, and probably over 300,000 in the entire country.

The infant mortality (under 5 years) was one-third of the total mortality.

From zymotic, or contagious and infectious diseases, there were 23,100 deaths; 182.87 deaths out of every 1,000 deaths from all causes being from diseases of this class. In 1891 this proportion was 178 and in the five years preceding it was 193. There was one death from zymotic diseases in every 281 of the population, or 3.57 deaths per 1,000 population.

*From the thirteenth annual report of the State Board of Health of New York.

Typhoid fever has been less prevalent and has caused fewer deaths proportionally than during any year since records were kept by this Board. There were 300 fewer deaths than in 1891, and 13.25 deaths from this cause out of every 1,000 from all causes. The falling off has been mainly in the Hudson valley district, where last year the rate was 30.47 per 1,000, now 18.86. The region of highest mortality this year is the Mohawk valley district, the death rate of which is 27.69. The maritime district shows, as always, a low proportion of deaths from this cause, never varying from between 8.50 and 9.50 per 1,000 deaths. In the four large cities there were twenty-five deaths in each 100,000 population, and in the rural regions, classed in the Monthly Bulletin as "rest of districts," thirty-five deaths in each 100,000 population.

Diphtheria has caused more deaths than for several years, the total mortality from this cause being 5,918 as reported in the bulletin, which is 900 more than last year. The annual autumn increase of 1891 continued well on into 1892, and while there was the customary falling off in the summer, there has been an unusually large mortality from it in the last fall. In each 1,000 deaths there were 46.86 from diphtheria, which is not as high, however, as in the years 1886, 1887 and 1888, when there were between sixty and seventy deaths per 1,000 deaths from all causes. The diminution of recent years is pretty certainly due to the more intelligent management of these epidemics and the enforcement of quarantine under the direction of this Board. In six large cities, with an aggregate population of 3,371,000, there were 120 deaths per 100,000 population: in the rural regions there were but fifty-one deaths per 100,000 population. Diphtheria is becoming more and more a disease of the cities, where it is constantly present. Epidemics of more or less severity have been reported from a considerable number of towns and villages.

Diarrhœal diseases have caused a number of deaths not varying much from that of past years; 74.15 deaths have been reported from this cause in each 1,000 deaths from all causes. A very large proportion of these occurred in the large cities.

Scarlet fever shows the same rate of mortality for the State as during the past three or four years. Measles has been more prevalent and especially in the maritime and Hudson valley districts, which include nearly half the population of the entire State, where 1,200 of the 1,350 deaths from it occurred. Malarial diseases have been more prevalent for the past two years than previously; the maritime district had thirteen deaths from these causes to each 100,000 population; the Hudson valley district and Lake Ontario and western had respectively nine and 8.24, while the southern tier and Adirondack districts had but between two and three deaths per 100,000 population, showing that deaths attributed to this cause were more frequent in regions having a large city population. It is likely that many deaths reported from malaria are not properly paludal malaria.

Consumption caused 13,470 deaths during the year, which is 10.5 per cent. of the total mortality. In the last eight years there have been more than 100,000 deaths reported from it, or about one-eighth of the total mortality. Estimating the reporting population at 6,485,000, there have been a little over 200 deaths from consumption to each 100,000 of population during the year—about one death to every 500 population. No other disease furnishes anything like this mortality, nor is so widespread in its influence on the well-being of the State. Efforts for its control in various directions are being put forth under the direction and authority of the State Board of Health, and with the accumulating statistics which are being gathered as to its causes, and conditions on which it depends, the reduction in its prevalence may in the future be anticipated.

The mortality from diseases of the lungs and from other local diseases vary from that of previous years only as increased by the prevalence of epidemic influenza.

The total number of deaths occurring during the year, including delayed returns not counted in the monthly bulletins of the Board, is 130,300; adding to which an estimated number of 450 occurring in a few towns that failed to make

any report during the year, the probable total mortality for the year in the State was 130,750. This makes the death rate for the year 20.78 per 1,000 population. In 1891 it was estimated at 21.43, and in the two years preceding 19.65. If the deaths from grippe are deducted the mortality would be about that of 1889 and 1890. The death rate of the six large cities was 23.10; that of 1,170,700 population living in rural regions was 19.90, or, deducting the mortality that was due to grippe, which fell fully as heavily on the country as on the city, the rural death rate would have been about 15.80.

Work on the Northern Border.—When cholera made its appearance in western Europe in August, and it became evident that active precautionary measures would be needed to resist its invasion of this country, this Board began at once to prepare for it. With this end in view, a circular was sent out to all the health officers on the northern border, calling their attention to the seriousness of the situation, and instructing them, in detail, as to their duties as soon as the first case of cholera should appear. These instructions included a thorough inspection, and general cleaning up of their respective communities; the frequent disinfection and purification of railroad stations, trains, steamboats and other places; instructions as to the disinfection and disposal of the discharges in privies and urinals on trains and passenger boats; the medical inspection of passengers coming from infected districts and their detention if deemed necessary; and the proper treatment of all clothing, bedding and other articles that had been exposed to infection. This circular was supplemented ten days later by another, which was sent to all the health officers in the State. This latter contained directions as to hospitals and other places for the care of cholera, and went into details in regard to disinfectants and the proper methods of using them, and also gave advice regarding food and drink.

A short time subsequent to the issuing of these, cholera made its appearance among the steerage passengers of some of the incoming steamers from Europe, which were held in quarantine in the lower New York bay. Fearing that the

same might happen with foreign vessels landing at Canadian ports, and that cholera might gain an entrance through that means, this Board decided to establish a stronger barrier upon the Canadian border to guard against such a contingency. After a careful study of the matter the following method was decided upon and promptly put into effect. The northern border was divided into four districts, the first district extending from Rouses Point to Watertown, the second from Watertown to Charlotte, the third from Charlotte to Buffalo, and the fourth from Buffalo to the Pennsylvania line. A chief medical inspector was appointed for each of these divisions, and at intervals along these divisions, at important railroad points and steamer landings, local medical inspectors were stationed. These inspectors were carefully instructed as to their duties should cholera make its appearance, and in the meantime to prepare for it by assisting local health officers in establishing good sanitary conditions and in equipping themselves for their work. They were to report to the chief of their respective divisions. The division inspectors were instructed to have general supervision over their territory, to visit the local inspectors at intervals, and confer and advise with them with respect to their duties, and to report to this Board upon the work of their division. The reports of the division inspectors will be found in the appendix.

In view of the serious consequences that might have resulted if cholera had effected an entrance, the State has cause for gratitude in its fortunate escape, but it is believed that in spite of the enormous territory that had to be covered on the northern border the organization established by this Board would have proved its efficacy in guarding its invasion from that quarter. When, in the late autumn, all vestiges of cholera had disappeared from quarantine in New York bay, the inspectors on the border were relieved from duty.

The Modern Treatment of Sprained Ankle.

In the January number of the *N. Y. Polyclinic* Dr. V. P. Gibney gives a number of cases treated with uniform success

by Cottrell's method, which consists in applying rubber adhesive plaster strips about the foot and ankle, sufficient to form a firm anklet, and immediately compelling the use of the foot by walking, and to walk on it every day as much as usual.

The advantages claimed by this method are:—There is no subsequent stiffness; the joint recovers its strength very quickly; it does away with the use of crutches; it does not confine the patient to the bed or house; and does not interfere with his ordinary occupations.

His first case illustrating the treatment is as follows:

Case 1.—Miss S., from a western city, was stopping with her aunt in this city, in November 1888. On the morning of the 15th she turned on her right ankle and received a severe wrench. She walked about during the day as best she could but found toward night that she was in a good deal of pain, and that swelling had come on. On the following morning, November 16, my friend, Dr. David Webster, asked me to see the case. I found the ankle quite painful under active or passive motion. Walking was extremely difficult. There was a ecchymosis and general discloration of the skin over the external malleolus, with tenderness on pressure and extra heat. There was no swelling on the inner side of the ankle. I was unable to make out any fracture or dislocation.

It was about 10 o'clock in the morning when I saw the patient, it was close onto my office hours, and I asked her to remain on the sofa with her foot on the head portion until the afternoon. I instructed her aunt how to employ amateur massage, and in the afternoon I found the puffiness a little less, the parts less tender. I then proceeded to treat it as Mr. Cottrell had described in his little book on page 88. I cut strips of rubber adhesive plaster about one-half inch in width and long enough to completely encircle the foot. Then with the foot still raised, I began strapping the foot, ankle and lower third of the leg, as I would an ulcer. The first strip came over the outer side of the foot down near the base of the little toe. It was put obliquely so that the next strip should cross this, one end begining near the heel and termi-

nating under the ball of the great toe. The third strip overlapped the first about one-half and was snugly applied, while the fourth overlapped the second in same direction, and so on until I had completely covered the foot, ankle and lower third of leg. It was, when I had finished, practically a Scultetus bandage. There was thus a firm anklet applied, and over this I put on a cheese cloth bandage in order to make the plaster adhere a little more closely and prevent the stocking from sticking to edges of the plaster that might turn up. I had her put on her stocking and shoe at once and told her to walk around the room ten laps. She objected strenuously at first, said she could not possibly do it; but after a little urging she took a few steps, then felt reassured, and after she had walked once or twice around, remarked, "See how well I can walk." She continued then, this walking for five or ten minutes, and felt convinced that she was perfectly safe in making future efforts. I directed her then to go down to dinner by the stairway, rather than the elevator (she was stopping at a hotel), and to go out shopping next morning.

November 17.—She has spent the morning shopping and called at my office in the afternoon on her way to the train. She has had very little pain. Is instructed now, to leave the adhesive strips on the foot for at least a fortnight, and as they begin to turn up at the edges, to trim them off, and continue using the limb as if she had no sprain. Under my instructions she wrote me on the 29th, which was as follows: "I think I can give a favorable account of my sprained ankle since I have been at home. I have taken off three or four strips of the plaster, but have not ventured to take off any more, as I am still a little lame. I have not suffered any sharp pain in the foot, only there is an almost constant dull ache." I did not see the patient any more, but on the 20th of March, 1889, Dr. Webster, who was treating her aunt reported to me that the recovery in my case was perfect, and that there had never been any relapse.

COMMENTS.—I continue to treat sprains in this way at my clinic and in the Out-Patient Department at the Hospital.

Both at clinic and at hospital we keep pretty full notes of cases, but they have not been tabulated. Suffice it to say, that members of my staff and students have been very much impressed with the facility with which patients get about when thus treated, and medical friends who asked me about sprains and have adopted the plan here advocated, have reported to me almost uniformly the brilliant results they have obtained. I do not recall any adverse opinions.

The Development of Bacteria at Low Temperatures.—

Foster (Centralblatt f. Bakteriologie u. Parasitenkunde, 1892, No. 13, p. 431) refers to a previous communication in which he pointed out the presence in sea-water and in sea-firs of bacteria capable both of producing light and of development at a temperature of 32° F. Pursuing the study further, he has, by means of an ice-calorimeter, succeeded in demonstrating in ordinary waters, in articles of food, in milk, in garden earth, and in refuse matters the presence of a small number of bacteria capable of existence and multiplication at a temperature of 32° F. This observation is in accord with common experience, that articles of food that are kept in the ordinary refrigerator after a few days acquire a peculiar, disagreeable odor and taste. That meat kept on ice, though preserving for weeks a normal appearance, never-the-less underwent decomposition was demonstrated by a progressive increase in the number of bacteria detected and in the quality of ammonia and volatile alkaloids present. It was found that meat kept on ice had at the end of sixteen days undergone decomposition in a degree corresponding with that in meat kept for six or seven days at a temperature of 46.6° or 48.2°, or for two days at the temperature of the room. It thus becomes evident that cold alone does not fulfil the requirements of a perfect preservative of foods. To this and the most powerful adjunct is the removal of moisture. This fact has been demonstrated in the treatment of fish, which, placed and kept in cold, dry compartments immediately after having been caught, can be sent long distances to market, remaining fresh for an indefinite time. — *The American Journal of Medical Sciences.*

Report of Patients Treated and Operations Performed in
the Albany Hospital, Albany, N. Y., from January 1, 1892,
to January 1, 1893. Compiled by Walter H. Conley, M. D.

(CONTINUED FROM PAGE 87).

Ophthalmological and Aural.

OPERATION.	MALES	FEMALES	RESULT				TOTAL
			CURED	IMPROVED	DIED	IN HOSPITAL JAN. 1, 1893.	
Cataract, Extraction of	16	17	29	3	..	1	33
Enucleation of Eye-Ball	10	5	15	..	..	..	15
Iridectomy for Artificial Pupil	1	..	..	1	..	..	1
" Congenital Cataract	1	..	..	1	..	..	1
" Glaucoma	1	1	2	..	..	..	2
Needling, Congenital Cataract	4	..	..	4	..	..	4
" Pupillary Membrane	8	8	16	..	..	..	16
Opening Abscess of Lachrymal Sac	1	1	2	..	..	..	2
" Blister on Lid	1	..	1	..	..	..	1
Paracentesis Cornea	2	..	2	..	..	..	2
Removal of Chalazia	6	5	11	..	..	..	11
" Dislocated Lens	1	..	..	1	..	..	1
" Foreign Body from Cornea	10	1	11	..	..	..	11
" Pterygium	1	..	1	..	..	..	1
Scalping Lid for Trichiasis . . . . .	..	1	1	..	..	..	1
Scraping Lid for Trachoma	1	1	2	..	..	..	2
Tenotomy for Strabismus	1	1	2	..	..	..	2
Chiseling Operation for Mastoid Abscess.	1	..	1	..	..	..	1
Opening Abscess of Frontal Sinus	1	..	1	..	..	..	1
Wilde's Incision for Mastoid Abscess	1	1	2	..	..	..	2
	68	42	99	10	..	1	110

Surgical and Gynaecological.

OPERATION.	MALES	FEMALES	RESULT				TOTAL
			CURED	IMPROVED	DIED	IN HOSPITAL JAN. 1, 1893.	
Abdominal Section, Carcinoma of Umbilicus	1	..	..	..	..	1	1
“ “ Cholo-Cystotomy	..	1	1	..	..	..	1
“ “ Colotomy, Left Inguinal	1	..	..	..	1	..	1
“ “ Exploratory	..	2	..	1	1	..	2
“ “ Intestinal Anastomosis	1	..	..	1	..	..	1
“ “ Intestinal Obstruction	..	1	..	..	1	..	1
“ “ Nephrectomy	..	1	..	..	1	..	1
“ “ Oöphorectomy	..	7	6	..	1	..	7
“ “ Ovarian Cyst	..	10	8	..	2	..	10
“ “ “ “ Dermoid	..	2	1	..	1	..	2
“ “ Pelvic Abscess	..	1	..	..	1	..	1
“ “ Peritonitis, Tubercular	..	3	2	1	..	..	3
“ “ Pregnancy, Extra-Uterine	..	1	..	..	1	..	1
Abscess, Aspiration of Hepatic	1	..	..	1	..	..	1
“ Opening of Abdominal	..	1	..	1	..	..	1
“ “ Arm	2	..	1	..	1	..	2
“ “ Cervical	3	1	4	..	..	..	4
“ “ Frontal Sinus	1	..	1	..	..	..	1
“ “ Hand	1	..	1	..	..	..	1
“ “ Inguinal	4	..	2	2	..	..	4
“ “ Ischial	1	..	1	..	..	..	1
“ “ Lumbar	1	..	1	..	..	..	1
“ “ Maxilla, Inferior	..	1	1	..	..	..	1
“ “ Tibia	1	..	1	..	..	..	1
Amputation of Arm	3	1	3	..	1	..	4
“ “ Fingers	5	..	5	..	..	..	5
“ “ Fore-Arm	1	..	1	..	..	..	1
“ “ Leg	6	2	7	1	..	..	8
“ “ Penis	1	..	..	1	..	..	1
“ “ Shoulder Joint	1	1	..	..	2	..	2
“ “ Thigh	1	..	1	..	..	..	1
“ “ Thumb	1	..	1	..	..	..	1
“ “ Toes	3	..	2	1	..	..	3
Breaking up of Dupuytren's Contractions	1	1	..	2	..	..	2
Buboes, Opening of	12	..	10	2	..	..	12
Castration, Neuralgia of Testicle	1	..	1	..	..	..	1
“ “ Sarcoma of Testicle	2	..	2	..	..	..	2
“ “ Tubercular Testicle	2	..	2	..	..	..	2
Cauterization of Back	5	1	3	3	..	..	6
“ “ Chest	2	..	1	1	..	..	2
“ “ Leg	6	1	5	2	..	..	7
“ “ Rectal Ulcer	..	2	1	1	..	..	2
“ “ Urethra and Vulva	..	1	..	1	..	..	1
Circumcision, Complete	12	..	12	..	..	..	12
“ “ Slitting	3	..	3	..	..	..	3

OPERATION.	MALES	FEMALES	RESULT				TOTAL
			CURED	IMPROVED	DIED	IN HOSPITAL JAN. 1, 1893.	
Curettng, Alveolar Process.	1	1	2	.	.	.	2
" Caries Tarsal Bones	1	.	1	.	.	.	1
" Coccygeal Dermoid Cyst	2	.	2	.	.	.	2
" Necrosis of Ankle	1	1	2	.	.	.	2
" " Ribs	1	.	1	.	.	.	1
" " Tibia	6	2	7	1	.	.	8
" Sinus of Back	1	.	1	.	.	.	1
" " Hip . . . . .	.	2	.	2	.	.	2
" " Scrotum	2	.	.	2	.	.	2
" " Thorax	1	.	.	1	.	.	1
" Uterus . . . . .	.	17	12	2	.	3	17
Dilatation, Cervix Uteri . . . . .	.	7	7	.	.	.	7
" Sphincter Ani.	2	3	5	.	.	.	5
Elytrorrhaphy of Cystocele and Rectocele .	.	1	.	.	1	.	1
Empyema, Introduction of Drainage	2	.	1	1	.	.	2
" Opening into	2	.	1	1	.	.	2
Enucleation, Fibroma of Uterus . . . . .	.	1	.	.	.	1	1
Evulsion of Thumb-Nail	1	.	1	.	.	.	1
" Toe-Nail	1	1	2	.	.	.	2
Excision, Adenoma of Breast . . . . .	.	1	1	.	.	.	1
" Carcinoma of Axilla	1	.	.	.	1	.	1
" " Breast . . . . .	.	6	4	2	.	.	6
" " " and Axilla . . . . .	.	22	17	3	.	2	22
" " " "
Double . . . . .	.	1	1	.	.	.	1
Excision, Carcinomatous Submaxillary	.	.	.	.	.	.	.
Glands	6	1	5	2	.	.	7
Excision, Cicatrix of Foot	1	.	1	.	.	.	1
" Cyst of Breast . . . . .	.	1	1	.	.	.	1
" " Cervix Uteri . . . . .	.	1	1	.	.	.	1
" " Face . . . . .	.	1	1	.	.	.	1
" " Neck	1	1	2	.	.	.	2
" " Ovary, Dermoid through	.	.	.	.	.	.	.
Vagina . . . . .	.	1	.	.	1	.	1
Excision, Cyst Sebaceous of Face	2	1	3	.	.	.	3
" " Scalp	3	2	5	.	.	.	5
" Enchondroma of Hand	1	.	1	.	.	.	1
" Epithelioma of Arm	1	.	1	.	.	.	1
" " Clitoris . . . . .	.	1	1	.	.	.	1
" " Face	5	2	7	.	.	.	7
" " Lip	10	.	10	.	.	.	10
" " Nose	1	.	1	.	.	.	1
" " Tongue	4	.	3	1	.	.	4
" Epulis . . . . .	.	2	2	.	.	.	2
" Fibroma Molluscum . . . . .	.	1	1	.	.	.	1
" " of Ear	2	.	2	.	.	.	2
" " of Neck	1	.	1	.	.	.	1
" Ingrowing Toe-Nail	2	.	2	.	.	.	2
" Lipoma of Axilla . . . . .	.	1	1	.	.	.	1

OPERATION.	MALES	FEMALES	RESULT				TOTAL
			CURED	IMPROVED	DIED	IN HOSPITAL JAN. 1, 1893.	
Excision, Lipoma of Back . . . . .	..	2	2	..	..	..	2
“ “ Breast . . . . .	..	1	1	..	..	..	1
“ “ Face . . . . .	..	1	1	..	..	..	1
“ “ Foot . . . . .	..	1	1	..	..	..	1
“ “ Shoulder	1	..	1	..	..	..	1
“ Nævus of Face	1	..	1	..	..	..	1
“ Sarcoma of Axilla	1	..	1	..	..	..	1
“ “ Fore-Arm . . . . .	..	1	..	..	..	1	1
“ “ Leg . . . . .	..	1	1	..	..	..	1
“ Thecal Abscess	1	..	1	..	..	..	1
Extraction of Bullet from Superior Maxilla .	1	..	1	..	..	..	1
“ of Splinter from Foot . . . . .	..	1	1	..	..	..	1
Fistula in Ano, Complete, Curetting of . . .	3	1	3	1	..	..	4
“ “ “ Drainage . . . . .	..	3	2	1	..	..	3
“ “ “ Ligature	2	..	2	..	..	..	2
“ “ Incomplete, Curetting of	1	2	2	1	..	..	3
“ “ “ Drainage	1	1	2	..	..	..	2
“ “ “ Incision	1	1	2	..	..	..	2
“ Recto-Vaginal . . . . .	..	2	..	2	..	..	2
Haemorrhoids, Ligation of.	4	1	5	..	..	..	5
Herniotomy, Femoral . . . . .	..	1	1	..	..	..	1
“ “ Inguinal	2	1	2	..	1	..	3
“ “ Umbilical . . . . .	..	1	1	..	..	..	1
Hydrocele, Open Incision.	2	..	2	..	..	..	2
“ “ Tapping	6	..	..	6	..	..	6
Hysterectomy, Supra-Vaginal . . . . .	..	1	..	..	1	..	1
“ “ Vaginal . . . . .	..	1	..	..	1	..	1
Incision into Arm for Cellulitis	1	..	1	..	..	..	1
“ “ Sarcoma of Gluteal Region	1	..	..	1	..	..	1
Introduction of Drainage, Sinus Abdominal .	1	..	..	1	..	..	1
“ “ “ “ Back	1	..	..	..	..	1	1
“ “ “ “ Fore-Arm.	3	..	2	..	..	1	3
“ “ “ “ Scrotum	2	..	1	1	..	..	2
“ “ Seton into Cyst of Lip. . . . .	..	1	1	..	..	..	1
Litholapaxy	4	1	4	..	1	..	5
Lithotomy, Perineal	1	..	1	..	..	..	1
“ “ Supra-Pubic	4	..	1	..	3	..	4
Opening of Bursa of Wrist . . . . .	..	1	1	..	..	..	1
“ “ Imperforate Anus	1	1	1	..	..	1	2
“ “ Paronychia	1	..	1	..	..	..	1
Paracentesis, Abdominal	8	1	..	9	..	..	9
“ “ Thoracic	1	2	..	3	..	..	3
Perineorrhaphy . . . . .	..	9	8	..	1	..	9
Plastic Operation for Cleft Palate	3	1	4	..	..	..	4
“ “ “ Hare-Lip	2	2	4	..	..	..	4
“ “ “ Web-Fingers . . . . .	..	1	1	..	..	..	1
“ “ “ on Nose	2	..	..	1	..	1	2
Removal of Adenoids, Post-Nasal	2	1	3	..	..	..	3
“ “ Exostosis from Humerus	1	..	1	..	..	..	1

OPERATION.	MALES	FEMALES	RESULT				TOTAL
			CURED	IMPROVED	DIED	IN HOSPITAL JAN. 1, 1893.	
Removal of Floating Cartilage from Knee .	1	..	1	..	..	..	1
“ Polypus, Cervical . . . . .	..	4	4	..	..	..	4
“ “ Urethral. . . . .	..	1	1	..	..	..	1
“ Powder from Eyes and Face . . .	3	..	3	..	..	..	3
“ Sequestrum from Femur . . . .	..	1	1	..	..	..	1
“ “ “ Finger	1	..	1	..	..	..	1
Resection, Inferior Maxilla	2	3	3	2	..	..	5
“ Superior “ . . . . .	..	1	1	..	..	..	1
Stretching of Ulna Nerve . . . . .	..	1	1	..	..	..	1
Suturing, Incised Wound of Arm. . .	2	..	2	..	..	..	2
“ “ “ Face	1	..	1	..	..	..	1
“ “ “ Hand	1	..	1	..	..	..	1
“ “ “ Neck	1	..	1	..	..	..	1
“ “ “ Thigh	1	..	1	..	..	..	1
“ Lacerated “ Face	3	..	3	..	..	..	3
“ “ “ Hand	4	..	4	..	..	..	4
“ “ “ Lip	1	..	1	..	..	..	1
“ “ “ Scalp	15	2	17	..	..	..	17
“ “ “ Wrist	1	..	1	..	..	..	1
Tenotomy, Plantar Fascia	3	2	5	..	..	..	5
“ Tendo-Achillis	6	3	7	2	..	..	9
Tonsillotomy	8	4	12	..	..	..	12
Trachelorrhaphy . . . . .	..	19	18	..	1	..	19
Trephining of Mastoid Process . . .	1	..	1	..	..	..	1
“ Skull	4	..	2	..	2	..	4
“ and Curetting of Tibia	2	..	2	..	..	..	2
Urethral Divulsion	4	..	2	..	..	2	4
Urethrotomy, External	3	..	1	..	1	1	3
“ Internal	18	..	15	1	..	2	18
Varicocele, Open Operation	2	..	2	..	..	..	2
“ Subcutaneous	1	..	2	..	..	..	1
	306	210	398	72	29	17	516

Summary of Operations.

General Operations,	516
Eye and Ear Operations,	110—626
Males,	374
Females,	252—626

RESULTS.

Cured,	497
Improved,	82
Died,	29
In Hospital January 1, 1893,	18—626

THE Albany Medical Annals

JOURNAL OF THE

Alumni Association of the Albany Medical College.

HOWARD VAN RENSSELAER, M. D., EDITOR.

VOL. XIV.

APRIL, 1893.

No. 4.

ANNOTATIONS.

Some Remarks on the Treatment of Pain and Insomnia.

According to Dourdoufi, pain and insomnia are morbid phenomena of much importance especially from the point of view of their practical signification. They exist in the clinical picture of a large number of diseases both acute and chronic. In the chronic diseases the issue of the pathological process depends largely upon the intensity of these symptoms and the possibility of limiting their deleterious influence. A rational medication of pain and insomnia, based upon the recognition of their pathogeny facilitates the role of the physician in his struggle with the diseases. Dourdoufi calls attention to a simple method of treating pain in general and cephalalgia especially.

1. In the case of cephalalgia, if it does not depend upon organic lesions of the nervous system, we have in percussion with the fingers or with the finger upon the parts which are the seat of the pain a simple and sure method of causing the pain to disappear almost immediately. In the examination of a patient who complained of atrocious pain in the head, Dourdoufi practiced percussion of the skull with the finger for the purpose of clearing up the nature of the cephalalgia. This examination was followed in two or three minutes by an entire disappearance of the cephalalgia. The experiment was repeated in a number of instances and always

with the same positive result. The percussion may be made with one or several fingers, taking the precaution not to occasion disagreeable sensations to the patient. This may be accomplished by controlling the intensity of the percussion according to the sensitiveness of the patient, and gradually increasing the force of the blows. As a general rule the percussion should never be too intense. This method ameliorates and even causes an entire disappearance of every form of headache of a functional nature, without organic lesion; hemicrania and headaches of neurasthenic, hysterical and anaemic patients.

The same method has been applied to the muscular pains of neurasthenics with the same positive results. Percussion with the fingers for three to five minutes has caused the muscular pains to disappear in cases where the application of electricity (galvanization and franklinization) and massage have remained ineffectual.

2. Dourdoufi has also obtained very satisfactory results in the treatment of rebellious insomnia by another therapeutic method. A young man thirty years of age who had been tortured for several months by an insomnia for which sulphonal (2 grammes) and chloral (2-3 grammes) had been used without effect, applied to him. He advised the patient to take, after retiring, some cold milk (previously boiled) three tea-cupfuls, and if possible more. This was taken every evening during the first hour and a half after retiring, the amount varying from three to six cupfuls. The result was very good, a calm sleep following, which lasted on an average eight hours. It is worth while to note that this result was obtained in an individual in whom sulphonal and chloral had not produced the slightest somnolence.—*Medical and Surgical Reporter*.

A Method of Increasing the Intensity of Heart Sounds.

—Azouley (Gaz. des Hop. May 12, 1892) communicated to the Academy of Medicine of Paris, May 10, 1892, a method of procedure which allows of the more easy detection of cardiac bruits, when they are only slightly marked, and which is capable of bringing them into evidence when they are absent during our examination of the patient. It consists in making the patient lie as horizontally as possible, with the arms raised above the head, and the head and legs raised as much as possible on cushions. Cardiac tension is thus increased, and the physical signs accentuated.—*Brit. Med. Jour.*

The Treatment of Haemoptysis.—(Zietschrift fur Therapie.) Professor Nothnagel writes of the treatment of hemorrhage from the lungs. He advises that the patient should be kept absolutely quiet, and that he should not even be allowed to speak. The room should be kept at a moderate temperature; he should eat nothing warm, and his food should be of the most readily digestible character. Cold milk should be the diet for two days. If the hemorrhage is moderately severe the case may be controlled by morphine alone, but if this is not successful other remedies must be tried. The internal administration of a solution of sesquichloride of iron and solution of tannic acid or alum is neither theoretically nor practically useful. The writer has found that ergotin and acetate of lead may be of great service. The former may be given both internally and subcutaneously, and its action is no doubt dependent upon its power of contracting the unstriped muscular fibres of the blood-vessels. The acetate of lead may be given in doses of from one-half to three quarters of a grain. Hydrastis canadensis may prove of use in this condition, but the writer has as yet had no experience with it. Atropine in subcutaneous injections of one sixty-fourth of a grain has also been employed with advantage. Common salt given in teaspoonful doses can do no harm, and may do good when no other remedy is at hand. The application of cold externally is of doubtful value, as it is apt to excite coughing, and its constricting power upon the blood-vessels must be very slight indeed. Venesection is not worth consideration.—*International Medical Magazine*.

Medical Incomes in Berlin.—According to the British Medical Journal, the income-tax returns of Berlin show that the prospects of the medical professions in that city are not encouraging for beginners. There are 1,747 physicians, or nearly half of the profession in that city, who make less than \$750 per annum, only 250 make \$2,000, and only 170 more than \$2,500 a year.—*N. Y. Medical Journal*.

The Latest Cholera Story.—A stranger arrived in Paris the other day, says the *Daily Graphic*, was accosted at the station by a man who stated that he was a sanitary agent. "Have you been disinfected?" he asked. "No", replied the traveler. "Very well, then follow me." And the "sanitary agent" led the way to a house in the Rue Lafontaine, near the station. At his bidding the traveler entered a large bare room and took off all his clothes,

which were taken away to be disinfected. Time passed; the traveler grew cold and impatient, tried the door, only to find it locked and at length realized that he was the victim of a new ingenious form of robbery.—*Medical Record*.

New Method of Finding Tubercle Bacilli in Sputum.

— Herr Dahmen has devised a modification of Bidert's method, the principle of which consists in separating the solid from the liquid portion of the sputum by boiling with caustic soda.

The author states that the same results may be arrived at by heating the sputum for fifteen minutes in a vapor bath. The solid particles almost immediately fall to the bottom and, after the liquid portion has been poured off, are well mixed up in a mortar and are ready for examination.—*Jour. Royal Micr. Soc.*

Hydrochloric Acid in the Stomach.—According to Ewald (Berlin klin. Woch.) a deficiency of hydrochloric acid in the stomach has, in recent years, been considered as indicating disturbed function and is not diagnostic of any definite organic lesion. During the first stage of digestion the acid present in the stomach is used up in neutralizing the different bases contained in the food. Later the free hydrochloric acid increases in amount until it reaches from one and a half to two and a half parts in the thousand of gastric contents. The absence of free hydrochloric acid does not necessarily mean that the secreting power of the stomach is entirely lost. A certain amount of digestion can take place by the help of unstable compounds of the acid which are present in partially digested food. In three conditions free hydrochloric acid is absent; gastric carcinoma, chronic catarrh leading to atrophy of the mucous membrane and severe nervous depression. Atrophy of the gastric mucous membrane is most common in old persons who have suffered from dyspepsia. The contents of the stomach contain no free hydrochloric acid, no pepsin and no rennet ferment. Cancer may exist for a long time without being suspected, the symptoms pointing to a severe neurosis. To improve the muscular tone of the stomach, strychnine, belladonna and physostigmine may be used. Good results may be obtained from exercise and massage, and from internal faradization. To prevent fermentative changes, the contents of the digestive tract should be made as far as possible unsuitable for the growth of micro-organisms. Resorcin, naphthalin, salicylate of bismuth and benzo-naphthol are recommended. The

author especially recommends the latter in doses of from two to five grains a day. It is tasteless and non-irritant and remains unacted upon in the stomach, but is split up in the intestine into naphthol and benzoic acid.—*Pacific Medical Journal*.

The Life of Cholera Bacillus in Beer.—The German savant is eminently practical when it comes to beer, and as soon as the cholera assumed noteworthy proportions in Europe he sets about determining the duration of life of the bacillus in his—the Savant's—pet beverage. He found, according to the *Pharmaceutische Zeitung*, that the bacillus does not live beyond three hours in Pilsener, Patzenhofer or Munich beer; two hours in Berlin white beer; five minutes in white and fifteen in red wine, and twenty minutes in cider. Two hours in cold coffee decoction (6 per cent.) was too much for the bacillus, but it needed five hours of a rye-and-chicory imitation to kill it. In milk which had been boiled for an hour the bacilli lived for nine days, but the tenth brought them to the end of their career. Cold tea was much the same, i. e., a 1 per cent brew, but a 2 per cent tea cleared the field in four days, 3 per cent in one day and 4 per cent in an hour. The bacilli were most partial to cocoa; they did not appear to die off in that at all.—*Pacific Medical Journal*.

Earache.—Take 5 parts of camphorated chloral, 30 parts of glycerine and 10 parts of oil of sweet almonds. A piece of cotton is saturated and introduced into the ear, and it is also rubbed behind the ear. The pain is removed as if by magic, and if there is inflammation, it often subsides quickly.—*Medical Brief*.

To Make Steel Instruments as Bright as New.—Clean the instruments by scrubbing with ashes and soft water, to remove all rust and greases; then soak them in a weak solution of hydrochloric acid in water (about 10 to 15 drops to the fluid ounce) for a few hours, to remove the remaining rust and grease; then wash them well in pure soft water. The next step is to place them in a bath consisting of a saturated solution of tin chloride. Let them remain 10 to 24 hours, according to the coating desired. When removed from the bath, wash them clean in pure water, and dry well. When the job is well done, the steel will appear as if nickel-plated. The technique of the process is so simple that no one should fail to make a good job, the main points being to remove all rust and greases, and have the bath a saturated solution of chloride of tin, the immersion being continued long enough to insure a good coating of metallic tin.—*Medical Brief*.

The Edison Current for Cautery Purposes.—In the New York Medical Journal for February 4th, Dr. Edward T. Bermingham, surgeon of the New York Throat and Nose Infirmary, describes a very ingenious apparatus which he has devised for controlling the Edison current so that it can be used direct for galvano-cautery operations. The apparatus consists of a *rheostat* made of coils of iron wire and a handle. The peculiarity of the handle consists of its having solid conductors, and the circuit is therefore always closed. It is under the control of the operator's thumb at all times during the operation and the current can be cut off from or allowed to pass to, the knife instantaneously and without producing an arc. The apparatus is simple and inexpensive, and, from the detailed description given, an electrician can construct it. Dr. Bermingham has been using it for two years and a half for all his cautery operations.

Reunion of the Alumni of the Albany Medical College.

The Association of the Alumni of the Albany Medical College will hold its Twentieth Annual Reunion on Wednesday, April 26. The order of exercises for the day will be as follows:

9 A. M.—Reception in Library. Coffee and sandwiches served.

10:30 A. M.—Annual meeting in Alumni Hall. Programme:

1. Faculty address of welcome, Dr. A. Van der Veer; 2. Minutes; 3. Reports; 4. President's Address; 5. Report of Historian and Class Historians of '53, '63, '73 and '83; 6. Election; 7. Miscellaneous business; 8. Reading of letters, etc.; 9. Impromptu speeches.

3 P. M.—Commencement exercises at Harmanus Bleecker Hall. Address by G. Stanley Hall, LL. D., P. C. D., Prest. Clark University.

8:30 P. M.—Alumni dinner at Delavan House. Dinner tickets to members of the association \$1.

You are cordially urged to be present. Please notify the Corresponding Secretary of your intention and enclose your photograph for Alumni collection unless previously furnished.

Yours fraternally,

SAMUEL H. FREEMAN, M. D. ('46), Pres.

CHAS. M. CULVER, M. D. ('81), Cor. Secretary,

36 Eagle Street, Albany, N. Y.

REVIEWS AND BOOK NOTICES.

The Anatomy of the Peritonæum.—By Frankiin Dexter, M. D. Assistant demonstrator of anatomy, College of Physicians and Surgeons (Columbia University), New York. With thirty-eight illustrations. D. Appleton & Co., New York, 1892.

It is always extremely difficult for medical students to comprehend the anatomy of the peritonæum, and most demonstrators find it hard to present the subject in such a way as to show, for instance, how certain portions of the intestines become entirely enveloped by peritonæum, and how other parts are but partially so invested, and how the lowermost portion is without serous covering. Especially, is the formation of the foramen of Winslow, troublesome to make clear.

In this little book, the author, by means of colored pictures, has traced from the earliest stages of embryonic life, the development of the alimentary canal and its adnexa, and their relations to the peritonæum. By a glance at the plates it is very easy to see how in the more advanced stages of growth the duodenum and colon lose part of their peritoneal covering. The relations of the greater and lesser omentum are also nicely brought out by the diagrammatic representation, and also how, by a twisting and folding process, the foramen of Winslow is formed.

The author evidently thought it unnecessary to give a general treatise on the subject, as, relying on the simplicity and clearness of the diagrams and the brief explanations of the plates, he has without extended comment been able to point out all that is usually considered abstruse.

The difficulty of teaching and learning this obscure portion of anatomy is almost entirely obviated by a study of this little book.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynæcology, Ophthalmology, Laryngology, Otology and Dermatology. By professors and lecturers in the leading Medical colleges of the United States, Great Britain and Canada. Edited by John M. Keating, M. D., LL. D., Judson Daland, M. D., J. Mitchell Bruce, M. D., F. R. C. P., David W. Finlay, M. D., F. R. C. P. Volume IV. second series, 1893. J. B. Lippincott & Co., Philadelphia, Pa.

The last volume of the second series of the International Clinics is fully equal to its predecessors in every respect. The articles show the same careful preparation, and embody the most recent views of the special topics of which they treat.

None of the lectures are too long, but on the contrary each author seems to have striven to present the most important aspects of his subject in as concise a manner as was consistent with clearness.

Most of the articles can be read in the brief moments of leisure that are frequently occurring even with the busiest of practitioners; and for the more continuous reading the change of style and manner of thought of each author, is a constant stimulus and pleasure to the reader, and prevents the mind from becoming quickly wearied.

Essentials of Diagnosis. Arranged in the form of questions and answers, prepared especially for students of medicine, by Solomon Solis Cohen, M. D. and Augustus A. Eshner, M. D., with fifty-five illustrations. Price \$1.50. W. B. Saunders, 913 Walnut street, Philadelphia, Pa., 1892.

Essentials of Materia Medica, Therapeutics and Prescription Writing, arranged in the form of questions and answers prepared especially for students of medicine, by Henry Morris, M. D., second edition. Price \$1.00. W. B. Saunders, 913 Walnut street, Philadelphia, Pa., 1893.

Both these compends are carefully prepared and are useful for students preparing for examination, for rapidly reviewing data drawn from their larger text-books, or to refresh their memories of the more important facts of the particular subject before going into a quiz. They are too concise to be of much practical value to the general practitioner.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received:

Medical Notes in Egypt. By Frederick Peterson, M. D.

"Oils and Fats," in Surgical Dressings. By Dr. C. M. Hobby.

Eighth Annual Report of the N. Y. Post-Graduate Hospital (And the Babies' Wards) for the year ending October 15, 1892.

Ueber das Volumen der rothen und weissen Blutkörperchen in Blute des gesunden und kranken Menschen. Von Med. Dr. Judson Daland.

The Bicycle in its Relations to the Physicians. By Seneca Egbert, A. M., M. D.

Cases of Symmetrically-Placed Opacities of the Corneæ, Occurring in Mother and Son. By Charles A. Oliver, M. D.

Fixation After Excision of the Knee. By H. Augustus Wilson, M. D.

Treasury Department—United States Quarantine Laws and Regulations.

An Outline of the Technique of Abdominal and Pelvic Operations. By William Easterly Ashton, M. D.

Twenty-fourth Annual Report, By-Laws and Lists of Members of the New York Physicians' Mutual Aid Association.

Ripening of Immature Cataracts by Direct Trituration. By Boerne Bettman, M. D.

Bloodless Amputation at the Hip-Joint, by a New Method. By Nicholas Senn, M. D.

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THE

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MAY, 1893.

\$1.00 A YEAR.

The Health Interests of Albany.*

BY LOUIS BALCH, M. D.

Situated as Albany is, on generally high ground, sloping toward the valley of the Hudson river, with no swamp land near enough to have much, if any, influence upon its hygienic condition, with every facility for perfect drainage, it should be one of the healthiest cities in the state. And it is a city free from severe epidemic of disease, but that more may be done to render it healthier is believed, and to this end your attention is asked for a few minutes to certain points of interest to every resident, for the sanitary improvement of the city is the material welfare of all its inhabitants.

Three requisites are necessary for health—good food, pure air and pure water. Of the first I shall not detain you by discussing it, for our market reports show no lack of this primary requisite. Of the two others much may be said and to them I will pay such attention as I am able.

Whatever renders the air we breath impure in the sense, not of smell but of adding to it gasses of a deleterious nature, is of menace to health. It is not claimed disease must necessarily follow the breathing of tainted air or that all impure air has in it the germs of some fever or other ailment, but the continued inhalation of air which is not pure, while no visible results are apparent, lowers the vital forces and makes resistance to disease when it attacks, more feeble. The tendency of nature is to recovery from conditions abnormal. This is the natural resistance of the healthy organism

*Read before the Albany Institute, March 6th, 1893.

against illness, but this resistance is so weakened by anything that lowers or depresses the normal standard of perfect health as to allow of far greater activity, on the part of the morbid influence, than would be the case were it the other way. Take one who lives in impure air, drinks polluted water and has insufficient and improper food. If he is attacked by any ordinary disease, say typhoid fever for example, his vital forces are so impaired, the normal standard is so lowered, that the patient succumbs and no medical skill can control the disease. The man has not the strength to resist the disease, and so he dies. Nor has he, from the impaired general physical condition, lowered by these requisites of health not being what they should be, the assimilative power on such sudden call, even though he be transferred to better hygienic surroundings, to avail himself of the benefit thus offered. And yet this same man before the onset of the fever was a strong and apparently perfectly healthy specimen, one able to do a hard day's labor and continue the same indefinitely. He had become acclimated, if I may be allowed the term, to a lower plane of physical health, one which appeared equal to the highest but one which could not offer the same resistance to disease when it was attacked.

In a city many causes operate to vitiate the air. Many of these are necessary evils and cannot be remedied. They must be borne as other things are borne where men segregate. Others, however, are within the power of man to remove.. And some have been acted against by the Board of Health and are, as fast as possible, being done away with. For the last four years the old-fashioned vaults in yards have been forbidden construction or maintenance. It still requires a good deal of explanation and argument to convince people of the benefit of this ordinance, benefit not only to themselves but to their neighbors, but a few minutes thought will serve to show the Board was wise when taking such action. One or possibly a few more vaults would cause but little contamination of the air, and all, non-appreciable pollution if the temperature always remained at a low mark. In cold weather

the rarification of the air, the arrest of decay in the vault's contents stops the emanation of gasses and no danger arises from these old-fashioned receptacles. This is, however, different when the mercury rises and the hot, moist air of summer lays over the city. In short yards, in compact blocks of buildings, the heavy summer night air does not carry away the gases generated by the fostering deposits, and they all are carried through the windows by air currents, breathed by those sleeping in the houses, doing the perfect work without blare of trumpets.

Vaults are generally constructed with drains leading to the street sewers. Here we have, in the opinion of those directed to do away with their out-houses, another strong reason for the great injustice done by the order of the Board. For it is claimed the drain keeps the vault emptied of its contents. But the drain is only a further argument against retention. The vault floor is from three to five inches below the drain mouth, to prevent tin cans, old boots, bottles, fish heads and other substances, for which the vault is an easy and handy receptacle, getting into the tile and choking. So from five to eight cubic feet of matter is left to rot and give off its miasms and that this does take place anyone can easily prove by examination of an ordinary yard vault during the hot months. The drain mouth is open above this deposit and, as the vault is higher than the sewer, it acts as a ventilator to the latter, thus adding to the poisoning of the air by belching forth the gases generated in the street sewer through the openings in the seat of the vault. During the day, if it be hot and sunny, the danger is lessened by the sun's rays acting upon the gasses, but at night every facility is offered for admixture with the air we are compelled to breathe of these noxious and poisonous gasses.

I have said but little danger arises from this source in cold weather, but complete immunity cannot be claimed even then. Most, if not all vaults, seep somewhat into the surrounding earth, thus adding to the pollution of the ground air already infected from leakage from drains and sewers, a

source of impurity impossible to guard against. But the added defilement of sewage from vaults may be done away with. This ground air in winter, our houses being heated, is drawn into them more or less and accounts partly for the peculiar odor found in cellars. It mingles with the warm air supplied to the dwelling in general, and naturally we are inhaling it with every respiration drawn indoors. I think, were the reasons of the health board fully understood for the passing of the ordinance forbidding vaults, less opposition to its enforcement would be experienced.

Modern sanitation requires definite methods and removal of house wastes, such as kitchen garbage. To do this costs money, but the keeping of such material for three or four days in a box or barrel, in the hot weather decay taking place or beginning before removal, is another source of pollution. The present manner of its collection in this city, by private parties who use it for various purposes, is not conducive to cleanliness to say the least, and is certainly not in accordance with known rules of sanitary science. Watch the carts used for this work and see the drippings and droppings that come from many. These are obliterated in the streets, but nevertheless add their quota to the general malicious exhalations. If one would visit the city's dumps, some alleys and by-streets, it would be seen that garbage is more easily disposed of by many of the inhabitants than by having a collector call for it. With a twist of the wrist a pan or bucketful is quickly disposed of, as far as the owner is concerned, and it may be carried away by the city's carts, or it may be allowed to lie where it falls till in course of nature it has passed into its component elements.

By the use of street sweepers, advance has been made in cleaning of streets, but much is yet to be desired. Money for this is also a necessity, for if the people wish clean streets they must, like everything else worth having, pay for them. It is still the custom in Albany to consider each householder has his own comfort as much at heart as could officials, and consequently he is expected to clean the street opposite his

own door, sweeping the dirt into well shaped piles for the convenience of the contractor's men in gathering it up. But the practical working of this economic scheme is not equal to the theory. Man has not yet reached the stage when he believes it his sole duty to do always as he should. Situated as we are on a side hill, many wait for heavenly aid to relieve them of this troublesome cleaning, as a heavy rain washes their share of dirt on their neighbors below, who, having double the amount, considers it unfair he should sweep for two, and, consequently, no pile is ready for the contractors to gather. And so the dirt takes chances and the wind whistles it up and whirls it about in eddies, scattering it broadcast, and the street is cleaned. But what becomes of the animal matter in the street dirt? It must decay and add its share to polluting the air.

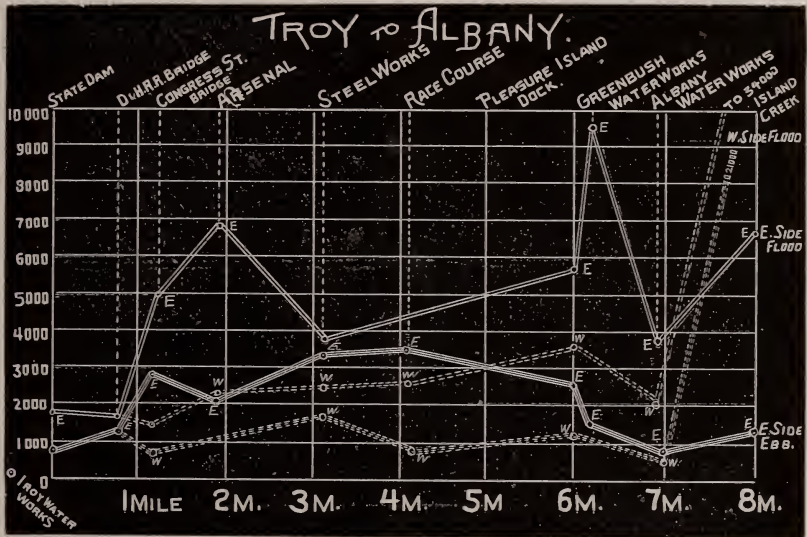
It appears then different conditions enter into the combined effect of rendering city air a grade below that considered a requisite for health. While some cannot be remedied, every effort on the part of the authorities to better the existing state should be met with cheerful support on the part of citizens, for, while at first the cost might somewhat raise the rate of taxation, the increased healthfulness due to such efforts draw investors and more money into the town, thus enlarging its prosperity and lightening the taxes by greater distribution.

Much has been said and published of late in the local papers about water supply. I do not pretend to have as great a knowledge about potable waters or their sources as the many learned and public spirited citizens whose letters have appeared in print so frequently. It is therefore with much hesitation I venture on this part of my subject, for to criticise or dare to differ from these high authorities and the well known perfect acquaintance with the subject had by the conductors of the journals, is presumptuous. I must beg pardon in advance and hope some slight grace may be accorded when the fact is set forth that the statements to follow are chiefly conclusions from actual experiments and examinations of more able men than myself.

The State Board of Health has for the past four years been making a careful study of the waters of the Mohawk and Hudson rivers from Rome on the former to Hudson on the latter. Some results of this work, results directly affecting Albany, I have the pleasure of laying before you this evening. In addition to this, I have had the honor for several years of serving the city as its health officer, and the experience drawn from such practical work helps me to the conclusions now presented. It is well known the major supply of drinking water for this city is taken from the river, pumped up from the intake opposite Quackenbush street to the reservoirs. The authorities of the newspapers tell us much about the pollution of the cities and towns above us, and some of them aver with great courage that on account of the flow and large amount of water, this pollution is carried off, and the water we receive is pure, wholesome and free from unlimited supply. I have not seen much attention given by these eminent writers to tidal action. It is by one set continually kept before the public that Troy is the main agent of the pollution and by the other, as already said, that we need fear no effect from Troy for no pollution reaches us. Floatage experiments, however, tell a different story, and while they do not relieve the towns above us of contaminating the water, show the major pollution comes from the sewage of Albany. It is the most immediate and active pollution, for its discharge is more direct and less time is given for sedimentation or the action of the moving water. If today all the sewage above the city was removed from the river, the water supply would be still tainted and a source of menace.

To demonstrate this statement, let me call your attention to the diagram. Professor Brown of Union University, who has had charge of the examinations of water supplies conducted by the State Board of Health, has kindly furnished me with the bacterial curves between Troy and Albany. The solid lines are on the east side of the river, the dotted lines on the west side; the triple lines are flood tide, the double lines the ebb. Take the solid double line on the ebb tide east side of the

river. It is noticed the great amount of bacteria shown is a short distance below Troy, opposite the race course. Above this point, fresh pollution is added from the iron works and other sources, but we find even with that the bacterial curve constantly lowering until the intake is passed, when the sewage from Greenbush and some influence from our own is



felt and the curve rises slightly. On our side of the river, the dotted double line, we trace the flow of sewage on the ebb and find West Troy to have some influence, sending the curve up to about 1500 bacteria per cubic centimeter until again we come to our intake and here we find the lowest rate shown, about 700 per cubic centimeter. But see what influence is instantly felt by the discharge of Albany sewage. Up goes the curve to 21000 per cubic centimeter, showing clearly that the sewage of Troy passes mainly to the east side of the river, and that on the ebb tide this sewage gives the least pollution at the intake.

Let us turn to the triple line on the bacterial curve on the flood. The solid line on the east side is seen to be highest opposite Troy, dropping, however, to a point almost equal to the highest of the ebb, but it now steadily rises. Why?

Floatage experiments at the time this was taken show the tidal action to be met at Pleasure Island, for up to this point, even though the tide rises at Troy, the current is southward, but slower than on the ebb. Below our intake the curve rises to 6500 and directly opposite the intake to 3800 bacteria per cubic centimeter and then away it goes to 9500, gradually falling till opposite Pleasure Island. This great rise of the curve is caused by the Greenbush sewage and partly by our own. But a more interesting line is the dotted triple. Below the intake it rises to 34000 per cubic centimeter; falls at the intake to 2000 and rises from there gradually until it meets the down current, reaching about 3800. These investigations are the result of careful work. I will not take your time in describing in detail how the specimens were taken, examined and the results obtained, but merely say they have been so carefully done that the complete work will be an authority on the examination of water supplies. It is with no hesitation, therefore, I lay them before you and base the conclusions drawn upon them.

The examinations show two things. First, as all tests have hitherto shown, the water pumped from the river is taken from the spot least affected by sewage pollution, and, second, that the greatest pollution is caused by our own sewage.

It should further be stated, the bacteria counted were all that were in sight. But to show more clearly the pollution is from sewage, and may contain dangerous germs, germs of disease coming from man, another diagram showing a cross section of the river at the intake has been made. This shows the number of bacilli coli communis counted, and shows that number to be largely increased by flood tide.

To remedy this state of affairs and to furnish Albany with good water, if the river is to continue the source of supply, intercepting sewers are absolutely necessary, sewers which must empty below the Island creek, or if discharged at that point, have attached sewage disposal works which will treat the sewage in such manner as to render the effluent of the

least contaminating force. Then can the city proceed against all places above, cause like improvements to be made and we may feel fairly safe in the quality of water taken from the river. Either this or the water should be taken from some other source.

But while to all appearances the pollution is less at the ebb tide, another fact must be taken into consideration. The pollution is caused from our sewage going up stream. It meets the return current and being precipitated, is partly washed down again, so constant and unending pollution, of about 700 to 1000 bacteria per cubic centimeter, is present. It is stated pure river water contains from two to three hundred bacteria, in brook water from 20 to 200 per cubic centimeter and of the bacillus coli from 0 to 5. We see the contamination is one that calls for attention and is not to be left to the wisdom of those who write letters to the papers with only the experience of the "oldest inhabitant" to quote as authority.

It would take too much time to enter upon the question of what influence the pollution of our water supply has upon the health of the city or whether from this cause disease has increased of late years. It is sufficient to say that the most careful search of water which we know must somewhere contain the germs of typhoid, has failed to reveal them. The charging of the water of all cases of typhoid in Albany is not in my opinion, tenable, but it is useless to discuss that question as it is beyond the range of this paper, more properly belonging to a medical society. It may be said, however, impure water has the same general effect as impure air and to both one slowly becomes acclimated but none the less are their effects felt.

But little noise is made by the board of health in its efforts to better the physical condition of the citizens. It is only right to say the board is fully alive to the wants of the city and takes cognizance of all things effecting health to the extent of its appropriation. Could its recommendations be carried out there is no reason to doubt Albany would be known as one of the healthiest cities in the country.

The Cholera in Hamburg in 1892.

ABSTRACT OF AN ARTICLE BY F. RIECHE, M. D., AND TRANSLATED BY A. A. ESHNER, M. D., IN THE AMERICAN JOURNAL OF MEDICAL SCIENCES.

The most striking feature of the epidemic at Hamburg was its sudden, explosive beginning.

To-day evidence is yet wanting as to the source of the first case. That the germ was not brought by way of the mainland would seem to be demonstrated by the fact that no cases occurred in any place situated between Hamburg and the two nearest countries in which cholera at the time prevailed, i. e. France and Russia. Whether the germ of the disease was brought by ships from Havre or from the Black sea is not known; general opinion, however, inclines to the latter named source.

Although the port of entry of the disease remains unknown, there is substantial evidence in explanation of its peculiar mode of extension. The simultaneous invasion at the beginning of the epidemic of parts of the city widely separated from one another, but especially the limitation of the epidemic within comparatively sharp lines separating Hamburg from the neighboring cities of Waldek and Altona, which were exposed to the same conditions of air, and probably also of soil, but each of which has its own separate water supply, leads to the inference that the common water supply of the city is to be looked upon as the principal channel of dissemination of the germs of the disease.

The city receives its supply of water, unfiltered, directly from the river Elbe, at a point just above its extensive harbor. The danger implied by this fact becomes the greater when it is added that the sewage of the densely populated city is poured into this stream, and that the ebb and flow of the North sea are perceptible at the source of supply. Waldek receives its drinking-water from an inland sea, while Altona derives its supply from the Elbe below Hamburg, but subjects it to a process of purification, by a method of sand-filtration that has been in operation for many years. The water sup-

ply of Hamburg has thus been entirely inadequate, and in the highest degree dangerous, furnishing conditions the most favorable for the existence of vegetable and animal life, while the interior of the water-distributing pipes is lined with a heavy deposit of organic matter. An additional factor favorable to the development of the disease germs, i. e., the comma bacilli, assuming their presence and constant renewal in the pipes of the water supply, is the existence of reservoirs with which, by municipal decree, all houses must be provided, as a precaution in case of fire.

The reservoirs were often cleansed, but carelessly, and sometimes not at all, and the slimy deposit that formed at the bottom furnished a most favorable soil for the development of microorganisms of all kinds. Too much reliance was placed upon filtration of the water, which was practiced in most households, even among the poorer class.

It goes without saying that other influences, such as an irregular mode of living, lack of cleanliness, a failure to carry out the preventive and protective measures recommended, as well as crowding amid unfavorable hygienic conditions, entered into the determination of an attack. These must be considered in every epidemic in every city, and do not apply, as do the other factors, specifically to Hamburg. One other point must not escape mention, and that is the large number of crooked, dirty, densely populated streets peculiar to Hamburg.

All attempts to demonstrate unequivocally, by plating methods, the presence of comma bacilli in the water, either the general supply or the house reservoirs failed. This fact cannot be urged as an argument against the spread of the disease by way of the water supply, in view of the difficulty of detecting cholera bacilli in water.

As a matter of fact, during this time, meteorologic conditions prevailed, that, according to all previous experience, were most favorable to the spread of cholera, and that besides were extremely rare at and in the neighborhood of Hamburg. The weather of Hamburg, lying as the city does between the

North Sea and the East Sea, is generally variable, damp, and even in midsummer, is seldom very hot; but in the second half of August, 1892, the weather for several days in succession was extremely sultry, with a clear sky and mild southerly and westerly winds. The few thunderstorms that occurred brought no relief. Between August 17th and 24th the temperature rose almost daily above 87.8° F. In conjunction with these conditions, the water in the Elbe sank to a low level, and the ground-water level also fell.

During the preceding months the precipitation had been unusually slight. In consequence of the heat—perhaps, also as a result of the presence at this time of an unusual proportion of salt in the water of the Elbe and in drinking-water—many forms of animal life present in the water-pipes succumbed (Dr. Ahlborn): the otherwise sessile bryozoa were detached in large numbers, and dying, furnished a favorable soil for the multiplication of germs of all kinds. A permanent decline in the temperature took place in the last days of August.

The city lies in part, upon high, dry soil, and in part, upon damp, marshy land. No final conclusion is to be based upon the fact that the proportionally larger number of cases occurred within the latter-named area, as it is largely populated by the poorer portion of the community. The population of the city may be estimated at 600,000 inhabitants. In the table 85 cases are recorded as having occurred before August 21st; these probably all occurred after August 15th. It developed upon the hospitals to make the diagnosis. A case admitted to the New General Hospital on the evening of August 16th, with pronounced symptoms of cholera, died on August 17th, and a post-mortem examination was made on August 18th. Immediate examination of the intestinal contents failed to afford positive evidence. This was, however, furnished subsequently by the plating process. In the second case, also admitted to the New General Hospital, and in which the post-mortem examination was made on August 22d, Dr. Eugene Fraenkel was able in the course of the autopsy, from an exam-

ination of the intestinal contents, to make an unequivocal diagnosis of Asiatic cholera. A short time later the schools and the river-baths were closed, and a careful supervision of railway intercourse was instituted. Throughout the entire epidemic, notwithstanding the great demands made in the course of a few days upon the administrative and executive officers, upon the commissary department, and upon the physicians, not a single patient was refused admission to the hospitals on account of want of room; and at no time was there any real difficulty in making provision for all that were admitted. Not before the 1st of September were barracks erected in various parts of the city. Physicians, nurses and assistants had come from all parts of the German Empire with proffers of aid. The ambulance service was somewhat more tardy in systematic organization. It was necessary to transport patients to the hospitals simultaneously from all parts of the city, at the remotest distances. Notwithstanding the large number of conveyances pressed into this service, some little difficulty was at first experienced on account of the enormous number requiring transportation. Sanitary stations were established in twenty different portions of the city, and in these were placed physicians, whose duty it was to furnish first aid. Each station was provided with a disinfecting oven, by means of which wearing apparel, linen and bed-clothing were sterilized in a current of steam. From these stations persons were deputed to visit the houses in which cases of cholera occurred, for the purpose of disinfecting the stools and the furniture, and to protect the remaining members of the family from infection. Disinfectants were gratuitously distributed among the people. Burials took place directly from the hospitals or from provisional pavilions especially constructed for the purpose. Huge graves were dug in the Central Cemetery. In this connection there was some little difficulty at the height of the epidemic. Among other measures adopted in the course of the epidemic was the sending through all the streets, of wagons dispensing of boiled or spring water; the borings of artesian wells; the cleaning of certain especially unhygienic quarters

of the city; the organization of aid societies by the citizens, and the collection of moneys for the support of improverished families. The population maintained a praiseworthy calmness; readiness of aid and willingness of sacrifice characterized all classes.

As to the disease itself: a preponderance of severe cases at the beginning of the epidemic, with a moderation in severity as the mortality rate declined, was a marked feature of this epidemic, as it has been of previous extensive ones. Two features characterized this epidemic in contrast with the majority of others: the absence of febrile temperature early in the attack, and the conspicuously frequent absence of all prodromal symptoms, particularly the premonitory diarrhoea. In the majority of cases, thus, the disease sets in abruptly, and at once assumed its intensity, so that frequently, and particularly at the beginning of the epidemic, profound collapse, with diarrhoea and cramps in the calves of the legs, speedily followed the initial vomiting. Cases of fulminant cholera sicca were common at this time. Individuals would be stricken upon the street, while at work, or doing a meal. The clinical picture presented by the disease did not differ from that presented in previous epidemics. From a therapeutic point of view, the recent epidemic is remarkable for the fact that intravenous infusion was for the first time practised on a most extensive scale in many hundreds of cases, being not infrequently repeated a number of times in a single case. Besides this, subcutaneous infusion had warm advocates. Landois's method of centripetal arterial infusion was practiced alone by Dr. Schede. When it is considered that these various procedures were employed only in the severest cases, the estimated percentages of recoveries (25 per cent.), will appear a fair one.

A 0.6. per cent. solution of sodium chloride was the one most commonly employed; at times a 0.1. per cent. solution of hydrogen dioxide (Dr. Rumpf), was used; less commonly mild antiseptics, such as thymol (Dr. Heinleth), were added to the solutions: in a number of cases slow infusion was conjoined with sweat-baths (Dr. Zippel. The volumes of fluid

infused varied from two to four pints: the temperature preferably 104° F. Unpleasant complications were not encountered; inflammation at the site of puncture, as well as septic embolism, in consequence of imperfect sterilization of the solutions and apparatus employed, was extremely rare. The immediate result of the infusion was always striking, as a matter of course, frequently, of but brief duration, renewed vomiting and renewed diarrhoea being followed by a reproduction of cyanosis, the pulselessness, the dry tongue and the vox cholericæ that had but disappeared. Of other symptomatic measures, hot baths proved efficacious in counteracting the cramps. Enteroclysis, by means of solutions of tannic acid after the method of Cantani, was in some cases attended with remarkable results. Salol, which was universally used early in the epidemic, proved distinctly not of avail, given either by the mouth or injected beneath the skin in ethereal solution.

Calomel again earned much confidence for itself, and, given frequently in minute doses (gr. 1-60) or less frequently in larger doses (gr. jss,) often favorably modified the course of the disease. The other intestinal antiseptics were all soon abandoned. Opium suffered a similar fate; given internally it seemed to do harm; in a small number of cases given subcutaneously in aqueous solution in small doses before the occurrence of collapse, it appeared to exert a favorable influence. For the vomiting, cocaine and chloroform as well as irrigation of the stomach, were frequently employed with satisfactory results. When coma had developed (and its occurrence was not prevented by the infusions), all therapeutic measures, including sweat-baths, venesection, infusions, diuretics proved fruitless. The treatment instituted in the algid stage by Prof. E. Klebs, by means of subcutaneous injections of antichlorin, a metabolic product of bacterial activity like tuberculocidin, and obtained from pure cultures of cholera-bacilli, is worthy of mention, and encourages the hope of further progress upon the same lines. The injections were followed by an elevation of the temperature during the attack, and a subsequent secondary febrile stage failed to appear. The proportion of re-

coveries is not at all unfavorable, but the number of cases treated with anticholerin is entirely too small for reliable conclusions to be arrived at. Of fluids, much coffee, tea and weak hydrochloric acid lemonade were given; carbonated waters seemed to induce vomiting. Ice was well borne; so also was oatmeal gruel with red wine. Injections of oil of camphor were almost universally employed as a stimulant. The total mortality in the New General Hospital exceeded 50 per cent. The number of cases received into the various hospitals may be estimated as greater than 8000.

Coma bacilli could not in any case be cultivated from the blood of internal organs, with the exception of the intestine. In one case in which the wall of the stomach presented superficial necrosis, invasion by typhical bacilli was demonstrable. Coma bacilli were looked for in all cases; as also in the many post-mortem examinations made by Dr. Simmonds at the old German Hospital—for the first time upon so large a scale in Europe. The conclusions of Koch were again confirmed throughout their entire range. In fatal cases the specific bacilli were found present in the intestinal contents until the eighteenth day of the disease; on the other hand, in some cases coma bacilli could no longer be found at a comparatively early date. On account of the great demands made upon the time and resources of the physicians, it was not possible to study bacteriologically the large number of case of mild and transient intestinal derangement that were particularly numerous at the beginning of the epidemic. That such cases are etiologically instances of cholera, as numerous clinical observations in this and other epidemics would lead one to surmise, has already been demonstrated by Cantani, by the detection of cholera bacilli in the stools. This observation was confirmed in some cases at Hamburg, and in some, at Berlin. Most extensive investigations in this direction during an epidemic of cholera would have been necessary to have enlarged the range of our views concerning the specific infections, and to have furnished grounds for a positive conclusion as to the part played by the individual disposition to a definite and

well-known disease poison. This important factor, in its intimate nature unexplained and unknown, though it may be, cannot be ignored in any consideration of the doctrine of the contagiousness of certain bacteria.

The Sanitary Condition of the State.*

The Hudson River.—The fourth report of the engineer in charge of the investigation of the condition of the waters of the Hudson river and its tributaries used as sources of water supply, is presented. The work this year has been almost entirely biological, inasmuch as we are inclined to believe that the chemical analysis of running water fails to give information as to the presence of living organisms now held to be dangerous, and sufficiently definite information as to the amount of organic matter which is in condition to sustain the life of such organisms. During the winter of 1891-2 series of samples were taken from points on the Mohawk river from Rome to the mouth of the river, covering the same ground embraced in the series obtained the summer before, thus giving a comparison between the condition of the river in the two seasons. Chemical examinations of samples from the same places were also made to determine, if possible, the relation between the results secured by the two methods. A full discussion of the subject is given in the engineer's report. The biological work consisted in the determination of the numbers of bacteria contained in a cubic centimeter of water by the gelatine plate method. The general result indicated is that the number of bacteria is materially lessened during the winter time, but the effect of the ice-covering is to reduce the rate of purification of the water after pollution. Thus, while the numbers of bacteria are generally much smaller the addition with a new supply of polluting matter are not lost until two or three or more times the distance has been passed over by the current.

From the thirteenth annual report of the State Board of Health of New York.

Series of results were also obtained from the Hudson river at different stages of the tide between Troy and Castleton, thus tracing the effect of the sewage of the cities and villages about that neighborhood. The same law of distribution of bacteria was evidenced by these results. The numbers of bacteria are less in the winter time, but the rate of disappearance of the bacteria during the flow of the stream below a source of pollution is materially decreased.

Some anomalous results below the city of Schenectady on the Mohawk river during the summer of 1891 led to the investigation of the phenomena of settlement of organic matter and bacteria in river water. Samples were taken below the Schenectady sewers at different localities for a distance of four miles in such a way as to secure cross sections of the river showing the numbers of bacteria at different distances from the shore and at different depths. The Schenectady sewers discharge into a pond formed by the State dam at the upper aqueduct across the Mohawk, and the current at low stages is less than one foot per second. The depth varies in the cross sections from three or four feet to twenty or twenty-five feet. The results of these experiments showed that there was a rapid settlement of the solid matters introduced through the sewers, and that for more than a mile below the sewers numbers of bacteria near the bottom were materially larger than at the top. It was also shown that the sewage pollution kept well to the side at which it entered the river until obstructions to the currents distributed the waters over the cross section. Similar investigations were made at points above the city where the river is a series of ripples and pools. In these places the currents are more rapid and the obstructions to steady flow are more numerous. It was found that the sedimentation under these circumstances was very slight as measured by the decrease in the number of bacteria, and that no very marked decrease occurred until the still water of the pond produced by the dam was reached. Of course this remark only applies to the observations made in the limited distance examined during this set of experiments. The question is still under investigation in connection with other work.

The phenomena of settlement as observed in the river led to the desire to investigate such phenomena under the conditions that prevail in a settling basin. The best place for such investigation within our knowledge is the settling basin of the St. Louis water works. Arrangements were therefore made through the courtesy of M. L. Holman, the water commissioner of St. Louis, for a series of observations upon the water in a basin filled and then allowed to stand without disturbance other than that of the wind for a number of days. The water of the Mississippi river always contains much sediment, and was not at its best condition at the time of observation. The number of bacteria at the beginning of the period of settlement, was therefore large, varying in different samples from 6,000 to 10,000 per cubic centimeter. The disappearance of bacteria began during the first day, and the numbers decreased rapidly during the four days of observation, so that at the end less than 200 per cubic centimeter were present. Roughly speaking, the numbers were reduced somewhat more than half each day. It was observed, however, that the decrease in numbers was greater nearer the bottom of the basin than near the top. Curves showing the data accompany the report and the tables.

The same care exercised last year has been taken throughout the work this year to eliminate all sources of bacterial increase excepting the constant streams from sewers and drains. Only in this way can comparative results be obtained. The numbers of bacteria washed into streams during rain and the melting of snow is very large, and completely conceals the variation due to the regular sources, which latter may be dangerous in character. Care was also taken to plate the samples taken on the spot or at most within four hours, and when the plating of samples was delayed they were packed in ice as soon as collected. This precaution is also necessary to secure comparable results. A paper by Prof. J. H. Stoller on the variation in numbers of bacteria with the seasons and stages of water, including also the effect of flow through the distribution pipes of a system of water works, accompanies the report of the engineer.

The large variations in the numbers of bacteria associated with variations in the quantity of water flowing in a stream, directed attention anew to the importance of a ready method for determining the proportion of the bacteria which could be classed as coming from sewage or similar matter. A discussion of the matter led to the suggestion by Dr. Theobald Smith that his method for the study of bacteria by their action in fermentation tubes be tested on a larger scale with a view toward determining the relative numbers of sewage bacteria in a given sample of water. The method of making the cultures is described in *Centralblatt für Bacteriologie*, Bd., VII and XI, and also in detail in a paper by Dr. Smith in the appendix to this report. The method was first applied during the summer upon the Mohawk river, and to some extent on the Hudson. Fermentation tube cultures were also made of a number of samples in the St. Louis work. Many results were obtained during the fall from the Hudson river near the intake of the Albany water works, and a series on the Mohawk river in winter is now in progress, to be followed by one or more on the Hudson, which will follow the line of the former sets. The value of the new method will thus be thoroughly tested, especially since at frequent intervals samples are taken from known unpolluted sources with which to make comparisons. The results thus far obtained indicate that the method is one of the greatest value as an easy and sure method of determining with definiteness the ratio of pollution of a sample of water by organic matter, from suspicious and possibly dangerous sources. The details of the method and the results thus far obtained are given in full in the report in the appendix.

Examination of Cattle for Tuberculosis.—During the session of 1892 the Legislature passed a law, chapter 487 of the laws of that year, which conferred power on the State Board to cause an examination of milch cows for tuberculosis and other contagious or infectious diseases. For reasons obvious to all, the Board confined its work under this law to the single disease, tuberculosis, formulating rules and methods of proce-

ture, is called for by the act, appointed inspectors and began work in August. The finding of men qualified to properly carry out the investigations was more difficult than would at first seem, for those who had paid attention to this form of disease in cattle were limited in number.

Work was begun in Westchester county, Orange county, followed by Kings being added to the range of inspection. Some examinations were also made in Livingston county. Three inspectors were appointed with a chief inspector and also a consulting veterinary. Up to the present time about six to eight thousand cattle have been carefully examined, and a larger ratio of examinations may be expected monthly, the inspectors being able to make more inspections in the winter months than during warm weather.

The appropriation granted by the law was not sufficient to start operations on a large scale. So far, however, the experience of the work proves that much good is being done and much more will be accomplished during the year, the Legislature having allowed further moneys. It is also found better to proceed in the manner the Board is now doing, than to start a great number of inspectors simultaneously, as the work is more thoroughly performed and less chance of mistakes in diagnosis encountered.

The value to the farmers or owners of cattle is at first sight not understood by them, but a clearer knowledge of the purpose of the law brings with it appreciation of the ultimate benefit it will be to their own interests. It is found, therefore, ready co-operation on the part of owners is the rule rather than the exception.

Removing Odors from the Hands.—A paste of ground mustard and water is a first rate agent for removing traces of disagreeable smelling substances from the hands, such as salts of valerianic acid, cod liver oil, etc. Huber claims that any oily seeds when powdered will answer this purpose. The smell of carbolic acid may be removed by rubbing with dampened flax seed meal.—*The Registered Pharmacist*.

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ANNOTATIONS.

Briggs (H. M.) on the Recent Outbreak of Epidemic Cholera in New York.—In September, 1892, seven cases of cholera occurred in New York, and one case in New Brunswick, N. J., in which the cholera spirillum was found. In three cases where no biological examination was made, the associations and clinical history justified a diagnosis of Asiatic cholera, making a total of eleven cases. Histories of the cases are given. Eight of the cases were men employed severally as laborer, as laborer in tripe factory, in slaughter house, butcher, fireman, boatman, coachman, marketmen. One case was the infant daughter of, and two cases were wives, of victims of the disease. Two of the cases in which no bacteriological examination was made, recovered, the others died. Careful investigation into the source of infection, gave no satisfactory result. A review of the precautions taken against infection from vessels under quarantine, showed that the guards were probably sufficient. The cases occurred at widely separated points through the city, and in no instance was there suspicion of association. The high mortality in the recognized cases in the city and the lack of any association, render two suppositions probable: (a) that a number of mild cases of epidemic cholera occurred, in which the nature of the disease was not recognized. (b) That the cholera infection was in some way rather widely disseminated in the city.

Practically the same appearances and lesions were found after death in all the cases, and these were so characteristic, and so unusual in autopsies in New York, that in the later cases they seemed to the writer, in themselves, to be almost sufficient to justify a diagnosis of Asiatic cholera. The identity of the organism found in these cases with the cholera spirillum, has been confirmed by several well known bacteriologists. The author is convinced from his experience in these cases, of the enormous practical value of biological examinations for the diagnosis of Asiatic cholera. Such examinations were alone the cause of the exclusion of epidemic cholera from New York in 1887, and they were of the greatest importance in assisting the work of the Health Department in the outbreak this year. In no instance did a secondary case occur after the cases were brought to the attention of the Health Department.—*American Journal of Medical Sciences.*

Treatment of Ringworm.—The recent treatments of tinea tonsurans show a strong tendency toward the use of Losophan, a new and very active mycotic which has been giving remarkable good results. Losophan is a triiodocresol, very rich in iodine, [about 80 per cent.] with which, on application to dermatic lesions, it slowly parts, thus avoiding toxic effects, while making the pathological field untenable for living organisms. For these reasons, Losophan is indicated in all cutaneous conditions due to the development of the trycophyton fungus, in mycosis, pityriasis, sy-cosis, prurigo, pediculosis, and in all of the large groups of skin diseases due to the presence of filamentous fungi or microspores. The clinical reports advise the use of Losophan in 1 to 2 per cent. ointments with lanolin or vaselin. Where a wash is needed, a solution should be made of 1 or 2 parts of Losophan in a mixture of 25 parts of water with 75 parts of alcohol. The mixture keeps well. Losophan has already been tested in the treatment of phimosis and chancre. The best results were gained from a 1 per cent. powder, dusted over the lesions.

Chewing Gum in Fevers.—The salivary glands play quite an important part in continued fevers, yet they are not considered in the treatment of the case. One of the first and most important restrictions in the patient's dietary is to drop all solid food from the list at the physician's first request, and just then the salivary glands begin to lapse into torpid condition, which very often results in an inflammation, and finally suppuration, and that disa-

greeable dryness to the tongue and fauces, so uncomfortable to the patient. For the relief of this trouble, I have found nothing of so much importance as some nice form of aromatic chewing-gum, which relieves the thirst and dry mouth, improves the appetite and digestion, and restrains nausea, if any. Hence, some of the disagreeable accompaniments of the disease are mitigated. I believe also, that it materially aids the absorption of the medicine when the alimentary tract is so impaired by the incessant fever. I do not claim originality of this treatment, although I have never found any reference to anything of the kind. However, it may have been regarded as too simple to need mention; still it is, in my estimation, quite important in any continued fever.—*N. Y. Medical Record.*

The Best Method of Sterilizing Hard and Soft Rubber Instruments.—Lannelongue (*Gaz. Hebdomadaire*, 1892) recommends for the sterilizing of hard and soft rubber instruments, subjecting them to the fumes of quicksilver. The instruments are rolled in flannel impregnated with mercury and placed in closed vessels. By a simple test you can demonstrate that the space becomes filled with fumes of quicksilver. The bacteriological examinations show that after a very short time the instruments are thoroughly antiseptic. As a lubricant, the author is in the habit of using olive oil; a few globules of the quicksilver are kept on the bottom to keep the oil sterile. Since these measures have been adopted, the author has had the best results.—*University Medical Magazine.*

Comparative Measures of New York and California Girls.

	California Girl. FT. IN.	New York Girl. FT. IN.	Ballow's Girl. FT. IN.
Height	5 6½	5 5½	5 6
Length of head	8¾	8	8½
Circumference of bust	35	30½	32
Circumference of hips	35	30	32
Circumference of waist	24	19½	26
Circumference of neck	12½	12½	13
Width of shoulders	17½	15½	16½

The weights of the first and last are between 130 and 135 pounds, while the New York girl weighs about 126.—*Argonaut.*

Antiseptics and Disinfectants. — The prevention of diseases is the unselfish mission of the modern physician. Antiseptics and disinfectants to-day occupy the first place in medical and surgical practice. Dilute solution of acids have been strongly commended as preventative of cholera. The Liquid Acid Phosphate is an efficient agent in securing the desired condition of acidity.

Copper Arsenite Tablet Triturates, 1-100 and 1-5000 grain, have been extensively and successfully used in dysentery and diarrhoeal disorders and are indicated in cholera, both for specific action in controlling intestinal secretion and for relieving the profound anæmia.

Eucalyptus and Thymol Antiseptic is adapted for use as an antiseptic internally, externally, hypodermically, as a douche, a spray, by atomization, and as a deodorant. Its application in surgery is unlimited. It is an excellent dressing for wounds. It combines the antiseptic virtue of benzoic acid, boric acid, oil of peppermint, oil eucalyptus, oil wintergreen, oil thyme and thymol.

Tablets of Yellow Oxide of Mercury, containing two hundredths of a grain of the oxide, are a valuable prophylactic against dysentery and enteric fever. They prevent fermentation and putrefaction, and render aseptic and alimentary tract.

Chloranodyne is a combination of anodynes, antispasmodics, carminatives which has been widely employed in gastric and intestinal troubles. It acts very happily as an anodyne and as an astringent in cholera, dysentery, diarrhoea and colic.

Antiseptic Liquid arrests decomposition and destroys noxious gases that arise from organic matter in sewers and elsewhere, and may be used in cellars, barns, outhouses, and the sick-room.

Antiseptic Tablets are convenient for the extemporaneous preparation of antiseptic solutions of definite strength of mercuric bi-chloride for disinfectant purposes and for antiseptic sprays.

Disinfectant Powder possesses in a high degree disinfectant, absorbent, and antiseptic properties. It is admirably adapted for the disinfection of excreta in cholera, yellow fever and typhoid fever.

Sulphur Bricks are effectual in the fumigation and disinfecting of rooms after infectious diseases.

Ethereal Antiseptic Soap (Johnson's) was devised by an experienced nurse in the surgical clinic of the Jefferson Medical College. Its marvelous cleansing powers make it a valuable

adjunct to the armamentarium of the physician and surgeon. Mercuric Chloride can be dissolved in it in ordinary proportions.

Parke, Davis & Co. will be pleased to forward, on request, any information desired concerning these products.

A Bureau of Information for Doctors at the World's Fair. — At a meeting of the Joint Committee of the Chicago Medical Profession on World's Fair entertainment, held at the Sherman House, November 1892, the establishment of a bureau of information and service was delegated with approval and endorsement to Chas. Truax, Greene & Co., the committee reserving to itself the duty of such social entertainment of visiting physicians during the continuance of the Exposition as may seem desirable.

This action was confirmed at the final meeting of the Joint committee, Feb. 25, 1893, and on application of the Practitioner's Club and the South Side Medical Club, the matter of social entertainment was delegated to them, with full authority to act in the capacity of entertaining bodies, with the intention of the chairman and its American and foreign secretaries already appointed.

Chairman, Dr. Chas. Warrington Earle; American secretaries, Dr. Archibald Church, Dr. Geo. Henry Cleveland, Dr. John C. Cook, Dr. J. C. Culbertson; British, Dr. Sanger Brown; German, Dr. F. C. Hotz; French, Dr. Fernand Henrotin; Spanish, Dr. E. J. Gardiner; Italian, Dr. A. Lagario; Swedish, Dr. K. Sandberg; Canadian, Dr. R. D. McArthur; Russian, ————

The scope and duties of the above secretaries will be designated in the future. C. Warrington Earle, Chairman.

The Action of Phytoline in Obesity.—By I. N. Love, M. D. The statement will be accepted by all, that fat is not the highest grade of tissue; its object in the anatomy being really as a packing material, externally serving for the artistic purpose of rounding out the lines of the figure in a manner to favor curves and that which is graceful rather than angles and abrupt prominences.

Fat in proper quantity favors comfort and favors the really beautiful, and smoothes out the tangled threads of care and the wrinkled lines left by carking worries and the fuming and fretting of the every-day annoyances of life. It does not exist very much as a necessity to the physique, but rather as an accessory. That there can be too much of a good thing, goes without saying, and the numerous mountains of flesh moving about our streets and hiding themselves in their homes, will give evidence in favor of the truth of this statement.

An excessive amount of fat is not only unsightly, but is unhealthy; in fact, as an evidence favoring the thought that fat is a low grade tissue, we speak of other tissues degenerating into fat. Certainly, the tendency toward the accumulation of an extra and unnecessary amount of fat favors a dangerous fatty degeneration of the heart and the tissues forming other important organs.

The proper selection of diet with exercise, can do much toward the diminishment of fat; but the profession and the laity have long looked for some remedy which could be depended upon to assist toward this consummation, devoutly to be wished. In Phytoline we have such a remedy; this remedy being prepared from the active principle of the berries of the *Phytolacca Decandra*, after having been touched by the early frost. The remedy has been used for rheumatism for many years, and also for the diminishment of excessive glandular growths, and also as a helper for the drying up and the reducing in size of the breasts of nursing women. Inflammation and abscess of the mammary glands have often been prevented by its use.

Waugh (W. F.) on the Diet in Typhoid Fever.—During the course of this fever the power of digesting food is impaired, always seriously, and sometimes almost entirely lost; from the morbid process going on in the tissues of the digestive tract, and from the suspension of secretion. Secondly, food that will not be digested in the stomach or bowels is not only useless but harmful as in the absence of digestion, decomposition occurs with the production of substance injurious to the patient. Tympanites must be referred to this cause. The stomach and bowels should not be looked upon as digestive organs, but simply as receptacles for food that has been previously digested. Absorption, however, does take place, most actively in the upper half of the small intestine—the section least affected in typhoid fever. Absorption is diminished but not destroyed by catarrh. Such food principles should be employed as are absorbed from the stomach and upper bowel; the list comprises water, salts, peptones, maltose and dextrose. Casein, egg-albumen, dextrin, and gelatine are not absorbed as readily. But little fat is absorbed. Water should be given liberally, in stated quantities if it is not asked for. Digestion is thereby improved and emaciation largely prevented. Milk should be given only when predigested. The Fairchild peptonizing powder has been employed with good results. Kumyss is

better still when some stimulant is required. The raw white of egg, treated with pepsin and dissolved in ice water, is always acceptable and is especially applicable as it is wholly digested and absorbed in the stomach. Junket, bovine and Carnrick's infant food are also satisfactory.

It is best to vary the articles given. It is Waugh's custom to alternate the use of the Carnricks food, peptonized white of egg, and junket, giving a cupful of either every two hours, in alternation, and with each one a small quantity of bovine, from ten drops to a tablespoonful. This may be given in the other food or in porter sangaree. Coffee made with milk instead of water is also useful, but a dose of pepsin must be given with it.

The net result of the diet recommended are: 1. Avoidance of the gastro-intestinal irritation due to undigested food. 2. The sustaining of the patient's strength, by really feeding him, and the consequent avoidance of collapse, and all the ills coming from mal-nutrition. 3. Avoidance of the excessive emaciation so often seen after protracted attacks of typhoid fever. 4. Shortening of the convalescent period. 5. I put forward, tentatively, my impression that the secondary degenerative lesions of muscles, nerves, and other tissues, are not wholly due to continued high temperature, but, in part at least, to innutrition; and that these lesions are not nearly so marked when the patient has been fed on the system herein advocated.—*Phil. Times and Register*.

The Goat a Protection Against Cholera.—The most popular place in New York, if the cholera comes, should be Shantytown; and the proudest animal on the island will be the goat. For Dr. Klemperer, of Berlin, after going over the subject of securing immunity against cholera, and after trying all methods of vaccination, including the swallowing of a pint of cholera boullion, finds that the milk of an immunized goat does the work best and most easily. Subcutaneous injection of the milk from a goat artificially made immune was given to a man (who had volunteered.) The injection of 5 c.c. of this milk produced such a degree of immunity that 0.25 c.c. of his blood-serum protected a guinea-pig against cholera intoxication. There is hardly any doubt, says Klemperer that goats may be made more resistant by further injection, and thus their milk will have greater antitoxic properties. The author thinks it permissible to hope that the injection of 1 c.c. of such goat milk will protect men not only against the intoxication of

cholera, but also against the infection. The price of goats has been five dollars and upward. When cholera comes this much ridiculed animal may take a position in history higher than the sacred bull of Egypt or the vaccinated calf of Jenner. Harlem, too, will become the center of New York, and not an up-town annex.—*Medical Record*.

A Great Remedy.—The London Telegraph tells of an amusing scene which was witnessed one day on one of the Channel boats between Calais and Dover. The sea was rather rough. A young woman, pretty and nicely dressed, appeared to be suddenly taken very ill with sea-sickness. She groaned and screamed in apparent agony for some little time. At length a gentleman, who appeared to be a stranger to her, approached her, and asked whether she would like to take a lozenge, which he guaranteed would ease her of her pain. He had often tried it, he said, on people, and always with the most marvellous results. The young lady demurred a little at first, but finally accepted the offer. Never was cure so instantaneous. Hardly had she swallowed the lozenge when the fair patient was sitting up all smiles and ordering ham sandwiches and bottled ale of the steward. Some passengers were so struck with the incident that they inquired what was the remedy that had such a wonderful result, and the gentleman, who, as he said, was the agent for the sale of the lozenges, disposed of a considerable number of boxes of them at ten francs a piece. What was the surprise of the purchasers when they saw the young lady and her preserver go off arm in arm when the vessel reached Dover. The boxes were boxes of common jujubes.—*Medical Record*.

Stewart (D. D.) on Piperazin in the Treatment of Renal Calculus.—Piperazin is one of the more recent coal-tar derivatives.

1. It is freely soluble in water, and in cold aqueous solution will dissolve twelve times as much uric acid as will lithium carbonate.
2. Its urate is seven times more soluble in water than the corresponding salt of lithium, the most soluble of the metallic urates.
3. Piperazin is a stable compound, apparently not undergoing decomposition in the organism.
4. It readily excreted by the kidneys and may be detected in the urine in a few hours after a single dose.

The knowledge of the foregoing facts has led naturally to a wide clinical trial in the uric-acid condition, especially in gout and in uro-lithiasis, with a pretty general unanimity of opinion as to its value.

The writer reports several cases of uric acid diathesis, a few of which were cases of suspected renal calculus. A cure was said to have been established in three of the cases and marked benefits in the others, with the exception of one—that of probable mulberry calculus—no benefit was obtained by the use of piperazin. The action of piperazin is still somewhat obscure as yet, judging from the contradictory statements of those hitherto investigating the subject. In the test the solvent action of even dilute (one per cent.) solution of piperazin upon portions of uratic calculi is decided. In a warm chamber, with an equable blood-heat temperature, these are readily softened in a few hours, and this effect is more decided if the solution is permitted to flow slowly over the stone. The dose varies from ten grains to thirty daily.—*Therap. Gaz.*

REVIEWS AND BOOK NOTICES.

A System of Genito-urinary Diseases, Syphilology and Dermatology, by various authors, edited by Prince A. Morrow, A. M., M. D., Clinical Professor of Genito-urinary diseases, formerly lecturer on Dermatology in the University of the city of New York, Surgeon to Charity Hospital, etc., with illustrations, in three volumes; Vol. I, Genito-urinary diseases. D. Appleton & Co., New York, 1893. For sale by subscription only; \$6.50 per volume in cloth, \$7.50 in sheep.

Year by year the progress of specialism makes greater strides, and requires for its exposition improved operations and instruments and even the formation of new wards.

To bring together the more advanced thought and methods, and to explain the most recent scientific research as well as to review previous existing knowledge in the field of genito-urinary diseases and dermatology, this system of three large volumes has been commenced.

Of the three books treating respectively of diseases of the genito-urinary organs, syphilology and dermatology; the first, a volume of more than a thousand pages, has just made its appearance.

The field of genito-urinary diseases is very thoroughly covered. Each organ, or class of disease being written up by some well-known authority in each special subject. To illustrate the thoroughness with which the subject is treated, it will be necessary only to enumerate the topics discussed under the head of

functional disorders of the male sexual organs. The author divides these functional disorders into the three branches of spermatorrhœa, impotence and sterility. Under the heading of spermatorrhœa he discusses nocturnal and diurnal pollutions and their pathological significance, masturbation, sexual excess and continence; then, the course of spermatorrhœa and its local and constitutional effects and treatment. Under impotence, he explains the physiology of erection, and describes organic, psychical, relative, irritable and paralytic impotence and its treatment. Under the head of sterility he goes into the physiological characters of the semen, add the following pathological modifications; relative, and temporary aspermia, oligospermia, oligoozoospermia, ozospermia, chromospermia and hæmatospermia, and the treatment of the various forms.

The handling of each subject is thorough and masterful, and makes the work very valuable either as a book of reference or for exhaustive information.

Mother, Nurse and Infant.—A manual especially adapted for the guidance of mothers and monthly nurses, comprising full instructions in regard to pregnancy. Preparation for childbirth, and the care of mother and child, and designed to impart so much knowledge of anatomy, physiology, midwifery, and the proper use of medicines as will serve intelligently to direct the wife, mother and nurse in all emergencies, by S. P. Sackett, M. D., New York. H. Campbell Co., publishers, 140-142 Nassau St. 1889. Price \$2.

Many nurses all over this country cannot attend training school and perhaps inquire of the physician where they can obtain a book by which they may be more fully fitted for their work. These and young wives and mothers also may find in this book what they especially need and which they should not only read but study also and learn. Although the book does not exceed four hundred pages, it is compressed full of such knowledge as women need to know.

A Book of Outdoors.—"Outdoors" is the title of a refreshing little book which is a pleasure to read. The covers are in ten water-colors, and inside are articles on Lawn Tennis, by F. A. Kellogg; Yachting, by George A. Stewart, successor to Edwin Burgess; Cycling, by Julian Hawthorne; Football,

by Walter Camp; Baseball, by J. C. Morse; Horsemanship, by H. C. Merwin, Rowing, by Benjamin Garo; Canoeing, by C. Bowyer Vaux; a collection of authoritative articles on healthful outdoor pleasures, illustrated by Copeland, Beals, Gallagher, Young and Shute. This book, published by the Pope Mfg. Co., of Boston, for the benefit of the Columbia bicycle, contains articles without any advertising in them. Sent by mail to anybody for five two-cent stamps.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received.

Involution form of the Tubercle Bacillus and the effect of Subcutaneous Injections of Organic Substances on Inflammation. By S. G. Dixon, M. D.

The Purification of Drinking Water by Sand Filtration. By W. T. Sedwick, M. D.

The Third Year's Work at the Clinic for Diseases of the Rectum in the New York Post-Graduate Hospital. By Charles B. Kelsey, M. D.

Irrigation of the Urethra and Bladder by Posture and Continuous Current. By B. H. Daggett, M. D.

University of Nebraska. Bulletin of the Agricultural Experiment Station of Nebraska.

The Value of Javal's Ophthalmometer for the Correction of Astigmatism where Marked Amblyopia is Present. By A. B. Deynard, M. D.

Something More on the Pathology and Treatment of Hemorrhoids, Fissures, Fistulas and Ulcers in the Ano-Rectal Region, with a Few Notes on Prolapsus-Ani and Neoplasm. By Thomas H. Manley, M. D.

Surgical Therapy of Rectal Cancer. By Thomas H. Manley, M. D.

Outdoors. A Book of Healthful Pleasures. By Pope Mfg. Co., Boston, Mass.

Annual Report of the Board of Managers of the Maryland Hospital for the Insane. For the years 1891 and 1892.

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**Association of the Alumni of the Albany
Medical College.**

TWENTIETH ANNUAL MEETING.

The twentieth annual meeting of the Association of the Alumni of the Albany Medical College, was held in Alumni Hall, on Wednesday, April 26, 1893. The usual informal reception was held in the library, where coffee and sandwiches were served, photographs exhibited and greetings exchanged, between the hours of 9 and 11 A. M. The meeting was called to order by the president, Dr. Samuel H. Freeman, of Albany, at eleven o'clock.

The following members of the association, together with invited guests and others interested, were present: S. H. Freeman, ('46); W. H. Woodruff, ('54); H. Bendell, ('62); C. B. Tefft, ('64); T. D. Crothers, ('65); A. B. Burger, ('66); D. V. O'Leary, ('67); D. C. Case, G. P. K. Pomeroy, W. G. Tucker, ('70); J. B. Stonehouse, G. L. Ullman, ('71); D. H. Cook, G. L. Van Allen, A. T. Van Vranken, ('73); H. E. Mereness, ('74); R. Lape, S. A. Russell, ('77); J. H. Cotter, E. D. Fuller, D. La Hann, J. P. Prendergast, W. O. Stillman, ('78); E. A. Bartlett, W. C. Crombie, W. J. Nellis, ('79); C. B. Herrick, W. B. Madison, ('80); A. E. Abrams, C. H. Crawford, T. W. Nellis, F. G. Seaman, ('81); W. E. Deitz, G. H. Houghton, F. A. Palmer, H. R. Powell, J. B. Washburne, ('82); R. J. Dimon, M. J. Dwyer, H. L. Odell, J. F. Reilly, W. L. Schutter, J. M. Slingerland, ('83); W. H. Lemrow,

('86); J. A. Heatly, W. G. MacDonald, C. H. Moore, F. W. St. John, ('87); J. Archibold, ('88); A. H. Bayard, H. F. Bonesteel, ('89); F. W. Loughran, A. G. Root, E. S. Simpkins, ('90); S. LeFevre, J. H. Timmers, G. A. Williams, J. W. Wiltse, ('91); H. B. Burton, G. M. Fisher, R. A. Heenan, W. P. Kelly, W. G. Lewi, H. E. Lomax, L. H. Neuman, E. E. Reichard, ('92); J. B. Beebe, E. M. Bell, L. N. Bump, O. Curtis, H. E. DeFreest, R. E. Doran, R. A. Grant, A. A. Guy, A. W. Hedden, C. H. Herrick, A. E. Houle, W. E. Hunt, G. H. Janes, T. W. Jenkins, J. Jones, F. M. Joslin, W. H. Laughlin, E. M. Leach, J. B. Ledlie, P. T. Markey, C. E. Marshall, T. Morisseau, M. S. Reid, C. J. Robinson, G. F. Rogan, J. W. Russell, T. A. Ryan, W. B. Sabey, W. C. Sebring, M. Sheldon, J. B. Swett, Jr., R. H. Tedford, Jr., L. G. Tuttle, G. H. Van Gaasbeek, L. Van Hoesen, J. S. Wade, P. G. Waller, ('93); S. B. Ward, (hon.)

The president introduced Professor A. Vander Veer, M. D., who delivered the following address of welcome to the alumni on behalf of the faculty of the college:

ADDRESS OF WELCOME.

Mr. President and Gentlemen of the Alumni Association:

At this, the return of another of our annual gatherings, I desire to render to you the personal pleasure I experience in coming before you as a representative of the faculty. I am never so happy as when mingling with, or being in the presence of the graduates of the Albany Medical College. I am sure that I express the sentiment of the faculty in rendering to you our thanks for your presence here to-day. We accept it as an evidence of good will and interest in your Alma Mater. We believe that in such reunions the faculty and graduates are brought into mutual touch with each other in conversation and discussion, in such a manner as to result in benefit to the institution in which we take an equal pride. Each of these annual gatherings are gratefully remembered, many of them having been incentives to do more earnest work on the part of the faculty, for affording better facilities, and better instruction to succeeding classes.

We have here to-day among us men who remember a faculty much older than that which represents the college at the present time. The remembrance of the sterling worth of that faculty has a firm hold with them. I think I am not in error when I prophesy that we are to have from our presiding officer this day a summary of their worth, of their noble qualities, of the valuable work they did for this institution in their day, and of the excellent records left for us to consider, from time to time, as we halt in the rapid professional

journey we are making, to review and consider the experiences of the past. It is not my intention to cover the ground in that direction; I have no intention of bringing to your minds a subject that will be so well covered by the conversations of to-day, the speeches of to-night, the refreshing of memories that live in the cycles of time now past, but it is more particularly of the present, of the nearly a score of years that have elapsed since the present faculty became teachers, and to endeavor to develop in the minds of those who have since become Alumni planes of thought presenting practical experiences, striving in every way to incite those who have become students here to greater ambition in order to follow out in a proper manner their chosen profession. We, as a faculty, have reason to rejoice in the loyalty of our Alumni. They have given us their firm support in the steps we have taken in preliminary examinations, in a three years' graded course, in a lengthening of each term, in our endeavors to bring more clearly to their attention, when students, the clinical instructions and laboratory work, and all that pertains to the modern methods of teaching. We feel a just pride and strong love and affection for the graduates of this college as we look over their record, the positions they have taken in their different paths of life, and in the discharge of their professional duties. In military and civil positions they have occupied prominent places. As teachers and professors in other medical institutions they have presented practical illustrations of progress, of intellectual worth. Their work is on a foundation firm and well grounded; their principles of teaching are well known, and in national societies, in special societies, in all that pertains to careful biological and laboratory work we have striking illustrations of success from men whom we claim with pride as graduates of this college. Therefore, I repeat, that it is a pleasure for us to give you that hearty greeting this day that is extended from parents to their loving, loyal, honorable children. Without endowment, without being under the sunshine of special wealth and support, we have gone on in our progress until, with one or two exceptions, we are now giving to our students a longer term than any other like institution in the state. We have endeavored in our clinical instruction to bring out not only that which pertains to general medicine and surgery, but, in a like manner, the advances that are made in specialties.

While we have much to rejoice in in the past, we have before us a peculiarly arduous and important duty. That which has been accomplished in this state (that which the college has given its endorsement, working earnestly for it in local and state societies) the establishment of a State Board of Medical Examiners, is now one of the achievements for which we have reason to be justly proud, and in the making up of that State Board we have this institution represented by the Alumni in a manner that is pleasing to our pride, a source of strength to us in our hours of hard work, a consolation and a joy in knowing that a just recognition has been given to our graduates. And now that we have that which seems so just and proper in the regulations of the practice of medicine in this state, we look to you for that loyal support that will bring to this college, as students, men who command your respect; men, who, as recruits, will fill the thinned ranks of the old workers in our profession.

Much that pertains to our instruction has developed to that extent that we realize at times we have somewhat outgrown our place for teaching. Many

of you have observed, and we realize fully, that in our hospital instruction we have yet much to accomplish, and I am but echoing the sentiment of the faculty in the hope that we shall ere long have in this city, in addition to the hospitals already established, a new and well-equipped one containing all that pertains to modern hospital work.

Would time permit, were this the proper place, I would like to recapitulate somewhat the increase in the amount of work done by our different institutions in this city, and particularly that one which is the oldest, and which leads, as it were, in the number of patients, and the amount of work done. I can only say that in the report just made for the work done during the year, we find that in the number of patients admitted, and the number of operations performed, we have, in a single year, doubled the work done in the previous two years, when the last report was made. This may also be said of the other institutions which form part of the teaching strength and capability of this medical college. We need now, as a profession, your support, in impressing thoroughly upon the public the importance of greater capacity, a larger institution for the treatment of the ills, medical and surgical, that are constantly presented in the human family. In the endorsement of the progress made we look to you for an earnest, loyal adherence, and we know we do not look in vain. Impress upon those with whom you come in contact the importance of making this, your Alma Mater, greater in the future than it has been in the past.

To-day we hope to mingle in a manner that will give us an opportunity of relating our experiences, our successes, and failures. We are passing through a period now when worth and industry, when the careful, judiciously spent time of the student is to tell perhaps as much as at any one time in the history of this college. We desire to exchange views with each other and see what can be done for our mutual good.

We have the pleasure of placing before you an order of exercises which is the consensus of work done by your executive committee, and I trust that when this night comes to a close it will be said that it has been a joyous, instructive, interesting gathering.

Again, in behalf of the faculty, I extend to you our hearty, earnest welcome.

On motion of Dr. J. B. Stonehouse, the reading of the minutes of the last annual meeting was dispensed with, and the minutes as printed adopted.

The report of the executive committee and recording secretary was then presented. It stated that two meetings had been held during the year. At the meeting held May 26, 1892, the printing of the Alumni proceedings in the Albany Medical Annals for June and their reprinting in pamphlet form was authorized, and 1,250 copies were subsequently printed and distributed to the members of the association. The recording secretary presented a statement of the Alumni dinner account, from which it appeared that the receipts from

tickets sold had been \$225.50, and disbursements as follows: Lunch at college, \$12, and for the Alumni dinner and cigars, \$271; total, \$283 (exclusive of printing, etc.); leaving a deficiency of \$57.50, which has been paid by the faculty of the college, as was also the postage upon the Alumni proceedings, amounting to \$24. At the meeting held March 6, 1893, the distribution of the proceedings was reported. A copy had been sent to each of the Alumni, together with a college catalogue and treasurer's blank. The order of exercises for the annual meeting was discussed and the following committees were appointed: Arrangements of meeting, Drs. Tucker, Hale and Mereness; lunch and dinner, Drs. Tucker, Bartlett and Nellis; speakers and toasts, Drs. Vander Veer, Bendell, Culver and Cook; reception, Drs. Craig, Babcock, Allen, Willard, Russell, Duryee and Macfarlane. On motion the faculty of the college were invited to participate in the exercises of Alumni day and to appoint some representative to deliver an address of welcome to the Alumni at the opening of the annual meeting. The historian reported that the following class historians had agreed to present reports for their classes at the annual meeting: Dr. M. H. Burton, for '53; Dr. A. B. Husted, for '63; Dr. H. B. Whitehorne, for '73; and Dr. W. S. Donnelly, for '83. The recording secretary reported that the number of names with addresses upon the Alumni list was 1,193 and the total number of graduates to date 1,961. On motion of Dr. Dwyer, the report was received, adopted and ordered placed on file.

Dr. C. M. Culver, corresponding secretary, presented the following report:

The corresponding secretary would report that cards, announcing this anniversary meeting, were mailed to all the living alumni of our *alma mater*. Returns announced the death of Drs. D. Carlton Spencer, formerly of Augusta, Wisconsin, J. N. Miller, formerly of Poughkeepsie, Chas. E. Spring, of Holliston, and E. L. Angus, who died at Colorado Springs, 9th April, '92. Portraits have been received from Drs. W. G. Davis, '41, of Dunnsville, Albany Co., N. Y.; S. F. Fonda, '41, formerly of Sharon Spa, he having died the 27th Jan., '92; John Hotaling, '63, of Gallupville, N. Y.; C. J. Bacon, '64, of Camden, N. Y.; L. B. Rulison, of West Troy, A. G. Wilding, '92, Malone, N. Y.; and R. A. Heenan, '92, who practises in our own city; L. C. Frisbie, '41; E. F.

Fish, '79; and M. Parsons, '82. These portraits have been added to the alumni collection which adorns the table at the other end of this room. One dollar each has been received from Drs. W. G. Davis, '41, Jno. Hotaling, '63, William Stevens, '75, (now first vice-president of the Medical Society of the County of New York) and J. G. W. Entwistle, '83. Dr. Stevens' present address is 133 West 41st St., New York, N. Y., and that of Dr. Entwistle is 6336 Harvard St., Chicago. Pleasant letters, expressing their expectation of being with us to-day, have been received from Dr. Chas. J. Bacon, of Camden, N. Y.; T. D. Crothers, '65, Hartford, Conn.; W. E. Deitz, of Berne, N. Y.; G. J. Holmes, '82 of New Britain, Conn.; P. F. Curley, of Newport, R. I.; W. J. Pennington, of Brooklyn, N. Y.; R. A. Heenan, '92, and H. Seymour Pearse, of our own city. Letters and cards, expressing their regret at their inability to be with us to-day, have been received from Drs. S. W. Austin, '54, of Cataract, Wisconsin; A. B. Bowen, '68, of Maquoketa, Iowa; Herman C. Evarts, '73, now an officer of the New York City Asylum for the Insane, Long Island; A. H. Mambert, of Rondout, N. Y.; C. G. Hickey, '84, of Denver, Colorado; and A. G. Wilding, '92, of Malone, N. Y.

The treasurer, Dr. S. A. Russell, submitted his report for the year, from which it appeared that the balance on hand at the time of making the last annual report was \$88.32; receipts during the year, for dues \$117.00, and for interest, \$3.08; total, \$208.40. Disbursements during the year, \$82.34, leaving a balance on hand of \$126.06.

The report was referred to a committee consisting of Drs. A. E. Abrams, T. D. Crothers, and W. G. MacDonald, who examined the same, compared the disbursements with the accompanying vouchers and subsequently reported it correct. The report was then accepted, ordered filed and the committee discharged.

Dr. Bendell moved that the president appoint a committee of five to nominate officers for the ensuing year. Carried. The president appointed as such committee, Drs. H. Bendell, ('62), G. L. Van Allen, ('73), W. J. Nellis, ('79), H. R. Powell, ('82), and G. A. Williams, ('91). The committee retired.

The president's address being the next order of business, ex-president Vander Veer was called to the chair, and president Freeman delivered the following address.

PRESIDENT FREEMAN'S ADDRESS.

Fellow Alumni:

In accepting the honor that you have so kindly conferred upon me—the more gratifying as it was a surprise when notified by our worthy vice-president—

I am reminded of the first birthday greetings of our Alumni when I declined the proffered honor of being the first president. That was a memorable occasion in the history of the Albany Medical College, when, twenty years ago, in the unwonted vigor of early manhood, amidst the brilliant scintillations of eloquent enthusiasm and hopeful prophesyings, this Alumni Association was organized. In the evolution of these succeeding years and the advancement of learning our prophesy has already become history and many of those fond hopes and aspirations of earlier days have been more than realized, while the same unbounded enthusiasm and more satisfactory progress upon a higher plane, with clearer vision, will continue to be a more assuring inspiration in the practical study and solution of the world's great problem, until, more potent than that once famous school of Salerno, which dominated Europe in mediæval times, we may not only sway the generations that now are, but mold the generations yet unborn and transmit our enlarged inheritance to generations following.

As we have met together under such favorable auspices to celebrate our twentieth anniversary, let us now congratulate our *alma mater* and each other on our prosperous and hopeful condition, that, though having but just entered upon the twenty-first year of our corporate existence, we have already made an honorable record in the developments of professional knowledge and successful experience. Our search after knowledge has no prescribed limits.

The records of medical science, as of history, tell the story of constant progress and of ceaseless change. It is illustrated in nature; it is re-echoed in song. Tennyson has said, "Meet is it that changes should control our being lest we rust in ease. We sleep and wake and sleep but all things move." "For men may come and men may go, but I go on forever," is the song of the brook. "Is it not a grand thought," exclaims the philosopher, "that one generation goeth and another cometh, while the earth abideth forever! at least it is so much the worse for the poor old earth, if her doom is to stand still, while man improves from age to age." It has been tersely said, that "he may not lift at the wheel unless he keeps up with the wagon," and in this last decade of the nineteenth century, endowed with the spirit of the times, we are stimulated onward by the unexampled progress in medical science, based upon logical and proven facts and new discoveries, which shed a flood of light along the pathway of the future. It is our distinguished privilege to live in the most enlightened and progressive epoch in the history of the world; and in the advancement of knowledge no more rapid strides have been observed in any department of learning than in the domain of medicine. In reviewing the medical literature of the past few years we are impressed by the increasing tendency to forsake the routine mode of prescribing for the mere name of a disease, as unscientific and unsatisfactory, and adopting a system of more rational therapeutics according to its ætiology and deviation from a standard of health. The pathway of medicine is strewn with the wrecks of therapeutical theories, since, by the indisputable revelations of the microscope, in the biological researches of learned specialists, it has become more than suspected that certain maladies are caused by minute organisms, which are taken through the natural channels into the system and these indefinitely multiplied by reproduction. In the evolution of the germ theory we may discover the hitherto occult causes of our epidemic and contagious diseases, and who can attempt to

define the limit of the possibilities of the practical benefits and blessings arising from biological knowledge and the influence of the germ theory, of a large class of diseases, upon the clinical work of the profession.

A quarter of a century ago Louis Pasteur was ridiculed and censured by the foremost scientific body in France, because he ventured to assert that "there is no such thing as spontaneous generation," that "all life comes from pre-existent life, and there is a law of heredity." After illustrating his GERM THEORY, he boldly declared his conviction, that "it is in the power of man to cause all bacterial and parasitic maladies to disappear from the world." So lately was the dawning truth of to-day a heresy! It is interesting to know that this great scientist has just celebrated the seventieth anniversary of his birth, and now, not only the French academy, but the whole scientific world is enthusiastic in honoring him, and in presenting rare and substantial testimonials of regard in consideration of his vast services to humanity.

There is a peculiar pathos and poetic justice in these honors to Pasteur, so lovingly bestowed and gratefully appreciated, even after he has passed the Psalmist's limit of life. Characteristic changes mark the progress of every decade. Scarcely a score of years ago it was generally believed that cures were effected mainly by drugs, and if they were faithfully administered everything possible to favor recovery was being done. But in these brighter days of improved sanitation, the essential principles are better understood and drugs are deemed of secondary importance, whilst the practical application of the advanced knowledge of hygiene and the proper antiseptic methods of the treatment of the sick are becoming most potent factors in the prevention, as well as in the elimination of disease.

It is possible to imagine a community practically governed by sanitary laws and isolated from danger of contamination with disease, and the increasing longevity of the most civilized nations is, doubtless, due more to the improved sanitary conditions and environments of the people, than to any special form of medication. The knowledge of the present is evolved from the past; and is developed into the future; and as we see so much wisdom in the little that we know, we naturally argue that there is vastly more in the much that is beyond. The familiar history of our own Alma Mater—in which institution the speaker served for many years as curator, and was more than once offered a professorship—furnishes a remarkable illustration of the high achievements wrought out by the indomitable energy and genius of one man. To Dr. Alden March has been justly accredited the honor of being the founder of the Albany Medical College. He was a man of genial presence, tall and erect in stature and of great personal magnetism. He was an earnest and attractive teacher and eminently practical in his methods of instruction. He was a surgeon of intuitive perception, a bold, rapid and skillful operator, using either hand with equal facility. He achieved not only a local, but a national reputation for originality and ability. Intimately associated with him, Dr. James H. Armsby was almost equally instrumental in the successful establishment of the Medical College. To enlighten the community and thereby overcome a prevalent prejudice against post-mortem examinations and enkindle general interest in biology, Dr. Armsby gave a series of illustrated public lectures on anatomy and hygiene and the important benefits to mankind resulting from autopsies and

dissections. These lectures were received with popular favor and proved of great benefit to the interests of the college.

For the convenience and better care of the sick, these gentlemen established the first hospital in this city—the Albany hospital—and in connection therewith they also instituted the first free dispensary for the special benefit and relief of the sick poor. These beneficent institutions have given *prestige* to our Alma Mater for so skillfully and successfully sustaining them, and they have been of inestimable benefit to the whole community as well as to the interests of the college; and here may I venture the practical suggestion to this association, which only seems necessary to secure its fulfillment, that if this hospital building could be used as a general dispensary and for cases of emergency, and a *new Albany hospital* be erected upon our neighboring pine hills, its more healthful location and enlarged utility would prove of surpassing benefit. In addition to other gifts one of our philanthropic citizens has recently given \$10,000 to the Albany hospital, and it is gratifying to observe that the same earnest enthusiasm which was so successful in the foundation has continued to characterize the progress of these twin beneficent institutions with undiminished energy and increasingly satisfactory results. Each new class of medical students is reported larger in numbers, and naturally better equipped, than the preceding one. If now our Alma Mater is still unsatisfied with past achievements or present accomplishments, or seems to lack any of the transporting beauty of age, she cherishes the same unquenchable aspirations as in earlier years, and lives not on the fading records of the past, but on the promise of the splendid possibilities of the future. We might speak of other men whose names are illustrious in the history of our Alma Mater. We give our affectionate greetings to their memory, but our living interests are in the active work of the present. Already the golden age seems dawning upon us. Let us seek to catch a fresh inspiration from a glimpse of some of the superb unfolding possibilities of to-day and tomorrow. Since the organization of this association some of us witnessed the earliest operations of ovariectomy in this city. They were performed by three of the most eminent men of those days, Dr. March and two specialists, Dr. Atlee and Dr. Peaslee. Though the results of less than one-half of those early operations were successful, they were regarded as marvelous triumphs of surgical skill. I need not mention, in this presence, the name of one of our own number whose failure of success in that class of operations is a rare exception. The recent progressive investigations of specialists into the aetiology of diseases which have hitherto baffled the skill of the general practitioner, have shed new light upon improved methods of treatment. This is notably true of a large class of those ocular neuroses and digestional affections which will increasingly occupy the studious attention of the ophthalmologist. We congratulate our brethren of the Alumni, upon their fame and fortune already acquired in their magic cure of these diseases by the skillful adjustment of suitable eyeglasses.

A new and ingenious device for the relief of deafness, by a series of small disks to focus sound, is receiving many encomiums. But what may we say of the promised cure of deafness by the excision of the drum-membrane and the ossicles? Should all danger be averted and success assured, this would be a grand triumph of modern science in giving relief to a vast class of sufferers hitherto doomed to one of the saddest deprivations to which humanity is ex-

posed. This would indeed be the crowning glory of the age. The practical progress during this score of years in every department of medicine has been marked, and is an inspiration to the generation following; and, before its records shall have closed, we may venture to prophesy a radical change in medical therapeutics, that hypodermic medication will become the favorite method of practice. The greater convenience of alkaloids or concentrated medicines, the elegance and reliability of the preparations of the modern pharmacist and the more rapid and certain results obtained, without being dependent upon the uncertain action of a capricious stomach, are persuasive factors in making hypodermic therapy the popular system of the future.

GENTLEMEN OF THE GRADUATING CLASS: The Alumni salute you! Your diplomas of the Albany Medical College entitle you to our confidence and brotherhood. We cordially extend to you the right hand of fellowship and heartily welcome you into the membership of this association. We congratulate you upon being especially fortunate in entering upon the practice of your chosen profession at this auspicious time. The science of medicine is not complete. May the glorious vision of present achievements and greater possibilities of the future, be an ever present inspiration to stimulate your enthusiasm to studious devotion in your noble calling.

Let me urge you to cultivate the will and taste for study and work and labor diligently. Let the faith placed in you by those who seek your counsel never be disappointing. Cultivate a sympathetic interest in your patients, and always show a cheerful face in the sick room; it may often prove better than medicine. If you should be doubtful in any case, or if the confidence of your patient should seem to waver, be sure and be before him in asking for a consultation. BE GENTLEMEN EVERYWHERE; and always practice the GOLDEN RULE as your code of ethics. If you do these things you will deserve success and you may reasonably hope that the bread cast upon the waters will return after many days.

The members of the class of '93 were present in a body and rose when the president addressed them and received them into membership in the association.

On motion of Dr. Craig, seconded by Dr. Woodruff, the thanks of the association were tendered to Dr. Freeman for his interesting address, a copy of which was requested for publication in the proceedings.

President Freeman then resumed the chair.

The report of the historian was then read as follows:

REPORT OF HISTORIAN, DR. E. A. BARTLETT.

Fellow Alumni:

Twenty years have rolled away and each of them has given our Association men to swell our numbers and to help or hinder in the work the Association has to do. Judging from events, there have been but few to hinder, for our history is a radiant effulgence, bright and beautiful in the lives of our mem-

bers. From the reports of the various class historians we learn that in almost every state in our Union may be found the modest shingle of an A. M. C. graduate, and in many of our cities these men have earned honor and distinction. In fields of surgery, general medicine, gynecology and medical literature our graduates have won préëminence.

There is that in membership in such an organization as ours which stimulates and encourages; from the very fact that we are brought closely in contact with the successes and failures of each other, we are taught to sympathize and help. That to unite with this Association is a duty they owe to themselves as well as to the college is fast becoming recognized by those graduates of A. M. C. who have heretofore allowed their minds to become alienated from their fellows, as is shown by the fact that our membership roll is continually growing with the addition of their names. While every graduate is a member in theory, the fruit of the spirit is payment of annual dues and enrollment; thus, by touching elbows, is the enthusiasm kept alive that enlarges the borders of our usefulness.

Twenty years! Just approaching its majority! Fellow Alumni, let us see to it that this twenty-first year, upon which we are about to enter, shall be the best year in our history. A year in which, under the genial rays of fraternity, great fruitage shall be manifest. Let each one cast about for some way in which he may evince his loyalty to his Alma Mater. Strive to make the class of '96, which shall matriculate next fall, the largest and composed of the best prepared men ever entering these halls.

You men of '93! before you lies your history. We welcome you to our ranks with the heartiness of schoolmates. Your number is large, your influence may be great. As with us you enter upon the new year, allow no jot of your enthusiasm to abate, strive with us to place another star in the diadem of our fond and cherishing mother.

In conclusion, one word to the various class historians. In order that we may all keep *en rapport*, make it a practice to note down any matters of interest in connection with our college and association at the time you learn them. If of particular class interest hold it for use, if it be of general interest send it to the general historian. Many items of interest are lost to us forever simply because they are not fixed when found.

E. A. BARTLETT,

Historian Alumni Association, A. M. C.

On motion the report was received and ordered entered on the minutes.

No reports were received from the class historians of '53 and '63.

The historian read the following report consisting of condensed histories from various members of the class of '73:

REPORT OF THE CLASS OF '73, DR. HENRY B. WHITEHORNE.

DR. WM. C. BAILEY reports, under address of 614 Walnut Street, Knoxville, Tennessee.—That he was formerly Instructor in Clinical Medicine in the New York Post Graduate School, and is now Prof. Theory and Practice and Clinical Medicine, and Director Bacteriological Lab., Tennessee Medical College. He is also Medical Director of the East Tennessee Sanitarium at Knoxville. Is married, and proud of being a graduate of the A. M. C.

The doctor protests against the practice of conferring the full degree of M. D. on graduation. This he thinks should be the reward of a higher plane of post graduate instruction. He sends his best wishes to the assembled Alumni.

DR. DANIEL H. COOK.—Has practised his profession in Albany since graduation, and from a business standpoint has succeeded beyond his expectations. Was married in May, 1879, to Miss Crew, of Albany, and is now the happy father of a boy of 9 and a girl of 11 years. Has had opportunities offered of holding political office, which have been declined, as the doctor does not believe in mixing up politics with medicine. Has been president of the County Medical Society and is a member of the State Society. Is fond of his profession and hopes to continue in the harness for many years to come.

A few years ago he became the owner of a farm near the beautiful village of Altamont, where he has since engaged in the raising of a high grade of horses and cattle. This he finds a very pleasant diversion, though not a financial success; but he has the pleasure of owning the only herd of brown Swiss cattle to be found in the county.

DR. E. M. DRAPER.—Settled in Ilion, N. Y., the day after his graduation, where he has been ever since. Has a large and lucrative practice. Married, no children. Has been president of Herkimer Co. Medical Society, and is now consulting physician to St. Luke's hospital, Utica, N. Y. In 1889, with his wife, made an extended trip throughout Europe and visited the Paris Exposition.

DR. H. C. EVARTS.—Preserves a lively interest in his Alma Mater and deeply regrets inability to be present on Alumni day. After graduation passed a year as house physician in the Albany hospital, and then for some years was surgeon in charge of a passenger steamer which plied between New York and Bremen. For thirteen years has devoted himself to work among the insane, and for the past four years has been in charge of the branch of the New York City Asylum for the Insane, which is situated at Central Islip, Long Island. The doctor is married.

DR. W. S. SHIELDS.—Lives at Marion Centre, Pa., where he has resided since graduation. Has not succeeded in getting rich at the practice of medicine and has interested himself largely in other things. For the past four years has been postmaster in his town. He expects to give up practice shortly and sends his regards to all the members of the class of 1873, who "he hopes have done better than he has."

DR. S. OSCAR MYERS.—Reports his career in so interesting a manner that your historian begs leave to present it as given in the following:

At Barnerville Schoharie county, Dr. Myers was born April 30th, 1847. His grandfather built the first mills that were erected in that section. In 1869 he graduated from the New York State Normal School at Albany. He was prin-

cipal of a school at West Sand Lake two years and then in 1874 graduated from the Albany Medical College. He commenced practice at Bay Ridge, L. I. He was one of the assistant surgeons at the South Brooklyn Hospital and later became one of the attending surgeons for two years. While a resident of this place he was a member of the Kings County Medical Society. At the end of four years he went to Wickford, R. I. There he became vice-president of the Washington County Medical Society, fellow of the State Medical Society, member of the Medico-Legal Society and was sent as a delegate by the State Society to the American Medical Association. He was appointed by the Governor medical examiner of the Sixth district for six years. He has always been interested in public affairs and especially in educational matters. He was one of the board of visitors and examiners of the State Normal School and sole trustee and moderator of the school district. Later he was superintendent of schools in that town. For two years he was town treasurer of North Kingston. For seven years he was one of the vestrymen of the Episcopal Church of the town. Three years ago he moved to Mt. Vernon. Here he has been equally prominent. He is a member of the Westchester County Medical Society, of the Jenkins Medical Club, and was again sent as a delegate to the American Medical Association. He is clerk of the vestry in the Episcopal Church. He is one of the attending surgeons in the city hospital and is the health officer of the city. In politics Dr. Myers is a Democrat. He is a gentleman of quiet manners and has a high reputation as an able physician and surgeon.

DR. C. M. RULISON.—Is located at St. Joseph, Mich., where he has lived since 1890. He formerly practised at Flushing, Mich., having moved there in 1877, from Harrisonville, Lewis Co., N. Y. The doctor states that "his life has been uneventful except that he has done much hard work, and failed to accumulate much of the world's goods.

He proposes that the class of 1873 have a reunion at Chicago, August 1st, and asks how many will meet at the N. Y. State building at 10 o'clock on that day.

DR. G. L. VAN ALLEN says: "My personal history since graduation is an uneventful one; soon thereafter I settled in Clifton, N. Y.; after a few months removed from there to Galway, N. Y., where remained for four years; leaving there I took a trip abroad and on my return settled in Albion, Orleans Co., N. Y., in partnership; finding after two years trial that it was a poor ship to sail life's fleeting years in, I dissolved the unpleasant relation and came to Schenectady in 1882, where I have since resided. While residing in Albany I took a wife to myself who is still the sharer of my griefs and joys, with no olive branches about the home tree. I have been prospered in this world's goods to a satisfactory degree which indicates a certain degree of prosperity in my professional relations."

DR. A. T. VAN VRANKEN was appointed house physician and surgeon to the Albany hospital immediately after his graduation and served as such one year. After this he settled in West Troy and has been there ever since. In 1878 was appointed one of the attending physicians to the Troy hospital, which position he resigned in 1888, on account of the pressing needs of his private practice. For three years past has been one of the attending physicians to the Fairview

Home for Friendless Children. In 1886 was so unfortunate as to lose his wife, who left behind her three daughters. In 1889 was again married.

The doctor has an extensive practice, and more to the point, has accumulated a godly store of this world's goods.

DR. H. B. WHITEHORNE.—Shortly after graduation settled in Verona, N. J., where he has since remained. Has worked hard in laborious country practice, and has been successful so far as work goes, but indifferently in his quest for lucre. Was for ten years physician in charge of the Essex Co. penitentiary, which position he lost in 1890, owing to a change in the political mastership of the county. Has for fifteen years been in medical charge of the Newark City Home, a reformatory institution, and for two years one of the attending physicians to the Mountain Side Hospital, Montclair.

Dr. Donnelly presented the following report as class historian of '83:

REPORT OF THE CLASS OF '83, DR. WILLIAM S. DONNELLY.

Mr. President and Gentlemen of the Alumni:

Time in its remorseless progress has added ten more to the number of our years since last we met within hearing of the sound of the triangle. The passing of these years should leave us wiser and better men and I trust that many, their aims in part achieved, are happier, even though golden youth, with its rosy promises, its ardent anticipations and boundless ambitions, has passed forever.

In tracing up the history of our class I find that our own state of New York is the chosen abiding place of a large majority. Massachusetts claims two, and Vermont, New Hampshire, Rhode Island, Connecticut, Pennsylvania, Michigan, Illinois, Minnesota, Texas and Washington, D. C., each claims one. Two of our class-mates have journeyed to Europe in pursuit of further knowledge in their chosen profession. A majority have married; a few do not state whether they are married or single, and but three admit their bachelorhood. The greater number of the class have answered my letter of inquiry promptly; fourteen have neglected to answer; one letter has been returned uncalled for, and six of our old class-mates have journeyed to "that undiscovered country from whose bourne no traveler returns" to dispel our doubts or confirm us in our beliefs. If to-day we miss their fraternal greeting and well remembered faces, let us hope that it is well with them and that "after life's fitful fever" they have found rest and that peace which passeth understanding.

My thanks are due Prof. W. G. Tucker, Alumni Historian Dr. E. A. Bartlett, Dr. H. L. Odell and Dr. M. J. Dwyer for aid and information kindly furnished.

DR. HERBERT L. ODELL, Sharon Springs, N. Y.: Located in Hobart, Delaware county, May, '83. January, '86, entered into partnership with Dr. J. S. McNaught, drug store and practice, sold out March, '92 and removed to Sharon Springs, where he has a good practice. Dr. Odell has served one year as secretary and two years as president of the Medical Society, county of Delaware. Was married in '85 and has two children.

DR. CHAS. P. McCABE, Greenville, N. Y.: After graduating went to Boston, Mass., when he spent six weeks witnessing the clinics in the two hospitals and attending lectures by the Harvard faculty; returning to his old home he entered into partnership with his father, Dr. B. S. McCabe and began active practice, and is still hard at work. Was chosen supervisor of his town in '92, but declined a re-election. Was married in '83 and has one child.

DR. E. B. KARNER, Mill River, Mass.: Located at Stottville, Col. Co., where he remained 2½ years with a fair practice. Thence to Westfield, Mass., where he remained six years, gaining experience and lucre. Removed from Westfield to Mill River, where he is practicing, and managing a large farm. Was married in '85. Warns brother practitioners against combining medicine and farming.

DR. J. LESLIE SMITH reports that after his graduation he remained for six months at the Albany Hospital as junior and senior house physician, leaving to take a trip abroad for further study. During the year and a half he spent in Europe, he was at the Vienna hospitals, and also studied in Munich and Heidelberg. On his return, went into partnership with Dr. Potter, at Fort Plain, N. Y., leaving the same year to open an office in Rochester. Remained there until October '90 with an absence of one year, when he was obliged to recuperate his health. Next went to San Antonio, Texas, where he had a good practice for two years. Thence returned to Canajoharie, his former home, where he has been resting four months. Thinks he will return to Texas, and says the world has treated him very well. No fair fisher of men has yet succeeded in hooking this most desirable gudgeon, as the doctor is still a single man.

DR. THEOBALD SMITH after graduating spent some months at Cornell University, working in comparative anatomy. In November '82 he went to Washington, D. C., where he took a position under the government which he still holds. His work has been mainly in pathology and bacteriology, in conjunction with original researches into the etiology of infectious animal diseases. He has published a considerable number of papers and several monographs of original work. Dr. Smith now holds the position of chief of the division of animal pathology in the Bureau of Animal Industry of the Department of Agriculture. He has been connected since 1886 with the Medical Department of the Columbian University as lecturer on bacteriology, which course has been recently enlarged by adding hygiene. Dr. Smith's services in comparative pathology have been recognized by the Association of American Physicians, which body has elected him as one of its members. He is also a member of the American Public Health Association and of several scientific associations. Dr. Smith was married in '88 and has two children. He regrets that it will be impossible for him to come North just now, but sends his best wishes to all the class.

DR. JAY D. VAN WIRT reports that he knocked about until September '88, when he located at Boyntonville, Rens. Co., where he remained two years. Next bought out Dr. A. B. Willis, Johnsonville, where he still remains. Reports good success both in practice and financially. Was married in '83. Is a widower with one son.

DR. WM. L. SCHUTTER has remained continuously in Albany since graduating. Has been successful not only in getting a good practice, but also in capturing a good wife. And is unselfish enough to wish us all the same luck.

DR. ALFRED M. LEONARD acted as assistant physician at the eye and ear dispensary until Dec. 1st, 1885, when he located at Cleveland, N. Y., until the fall of '87, when he went to Europe, returning in a short time. Through ill health was obliged to discontinue practice in spring of '89 for the same reason and did not resume until fall of '92. He is now located at Cicero, N. Y., and doing well.

DR. CHAS. A. GILLETTE is very brief and concise. First year travelled for Albany Journal, 2d for Syracuse Standard, 3d year practiced in Syracuse. Next two years in Lafayette, N. Y. For the last four years practiced, and runs general store, Lafayette.

DR. FRED L. LADUE located in Alburgh Springs, Vt. immediately after graduating, where he has built up a practice equal to that of any country physician in the state. Was elected representative from his town in '92, serving for two years. Has been married, but is a widower with one child five years of age.

DR. JOSEPH M. STONE reports that after a short rest at home he struck out for "Greeley's Paradise," the West. Hung up at Ashland, Michigan, where he remained for a year and a half. Married the only daughter of his first patient, (he was the cattle king of Newyago Co.) and moved to Eastmanville, where he did a lucrative business. His wife's parents both died of the "Grip" in the winter of 1890, and their "Home Lawn" stock farm of 2800 acres demanding the attention of a competent manager, at his wife's request he took charge of the estate and is now devoting his attention to raising prize Durham cattle, Shropshire sheep and Poland China pigs. Assuredly his lines have fallen in pleasant places. Is still practicing and has two children.

DR. NEWTON E. HEATH has practiced in Stockbridge, Mass., and has lately located in Troy. Reports hard struggles and success. Good fortune and bad. He gives thanks for the possession of a good wife to whom he has been married nine years. He has one child.

DR. IRVING D. LE ROY took a course at the New York Polyclinic the year after graduating, and then settled at Pleasant Valley, Dutchess Co., N. Y., where he still remains. Has a good practice and is content because he has succeeded in defeating a strong opposition. He is a member of the Dutchess county Medical Society; a founder of the New York State Medical Association, and has been health officer of his town for five years.

DR. JOHN F. REILLY says he located in Greenbush April '83, and in all probability will remain longer, if allowed, because he has a very good practice. Hopes to meet all the "boys" Alumni Day, and returns thanks to God because he is still a bachelor. What think ye of this scoffer of the delights of married life, ye benedicts. Evidently he has solved the problem of how to be happy, though single.

DR. CHAS. F. WHARTON located at South Worcester, N. Y., and stayed about a year. Did not like the place and moved to Summit, his native place. Removed from there to Colliersville where he had a good practice and stayed three years, but returned again to Summit where he has remained since and is doing well. Was married before graduating and has one child.

DR. J. G. W. ENTWISTLE spent six years after graduating, in Troy, and has been four years in the windy city, otherwise Chicago, where he is located at Englewood. Has a wife and child.

DR. GEO. A. BRADBURY reports a quiet and uneventful life. He received an appointment as resident physician at the Albany Hospital shortly after graduating, where he remained until April '85, when he located in Lansingburgh, and as he has purchased a residence, thinks it extremely unlikely that he will ever make a change. Is prosperous and content.

DR. ISRAEL M. SLINGERLAND remained with Dr. Swinburne until August after graduating, when having purchased the practice of Dr. Ira Harris, class of '81, he removed to Fayetteville, having become married in the meantime. Was having good success, when he had the misfortune to lose his wife in '89. Two children were left. Was re-married in '91 and is in the enjoyment of a large and lucrative practice. Has taken but one week's vacation, and lost but one week through sickness during the ten years. Truly an enviable record. Contemplates taking a special course at the New York Post-Graduate School during the ensuing year. He extends a hearty invitation to all his old classmates to visit him in his happy home.

DR. LOUIS N. LANEHART writes that he spent one year in hospital work in New York, then practiced four years in Rensselaerville, Albany county. Thence removed to Hempstead, N. Y., where he has remained since. Regrets that it will be impossible for him to attend our re-union.

DR. RUSSELL J. DIMON located at Hastings, N. Y., immediately after graduating, where he has since remained. Has been successful financially and in practice.

DR. JOHN H. STEPHENS practiced with his preceptor three years at Cedarville, Herkimer county, and then opened an office, and after two years removed to West Winfield, where he has permanently located, and enjoys a good practice. Was married in '85 and has one child.

DR. FRANK L. SMITH located at Merwinsville, Conn., then removed to Sheffield, Berk. county, Mass., where he remained six years, when he was obliged to abandon that field by reason of overwork. Is now located at Bridgeport, Conn., and reports good success.

DR. MARTIN J. DWYER served a term of 18 months in the Albany Hospital, and in November '84 located at 137 Eagle Street, Albany, afterwards removing to No. 3 Lancaster where he is now. Is fond of varying the monotony of practice by taking long trips. Has crossed the Mississippi five times; navigated the Great Lakes and has made a few trips East and South. Has a good practice and is quite contented, although a poor forlorn bachelor. Let us hope that this last condition may not become chronic.

DR. FRANK S. DE LANO formed a partnership in a drug store in Ticonderoga during his second year at college, and immediately after graduating resumed his place in the business. Becoming dissatisfied he removed to Crown Point in '84 and began the practice of his profession. Six months later he removed to Westport, Essex county, where he has acquired a good practice and feels well content with his eight years work there. Was married in '83. Has no children.

DR. WILLIAM DAVIS after graduating located at Gloversville, N. Y., where he has established a lucrative practice. Is married.

DR. CHAS. J. LA DOW after graduating located at his native town of Mechanicville, N. Y., where he still remains.

DR. J. WILSON POUCHER, writes: "My first venture after leaving Alma Mater was at Modena, Ulster county, N. Y., where I hung up my shingle. A few weeks after graduation here in the beautiful, fertile and historic Wall Kill Valley I remained two years, doing a nice country practice. At the end of this time having saved up a snug little sum of money, I sold out my effects, packed my trunk and started for Europe to try to improve my stock of professional knowledge. After spending about two years at Berlin, Vienna, Strasbourg, Paris, I found my earnings exhausted and came home eager to get once more at work. This time I settled in the city of Poughkeepsie-on-the-Hudson, where I am now doing a very satisfactory general practice. I have been during the last four years, attending surgeon to Vassar Brothers' Hospital of this city. Am a member of the Dutchess County Medical Society, which I have served for three years as delegate to the New York State Medical Society, to which I was last year elected a permanent member. Have been married about a year and have the best wife and mother-in-law in the state, so you see, all things considered, I have very little to find fault with and if I am permitted to meet and shake by the hand, each one of you next Wednesday at our re-union, I shall be quite happy."

DEATHS.

DR. GEO. E. WHIPPLE after graduating located in his native town of Essex, removing some months later to Olmsteadville, Essex county. Was married in '85 to Miss Ella Havens of Albany. The long drives and night work of a practice in a sparsely settled mountainous district soon undermined his constitution, and he was compelled to relinquish his practice. After a few months he located at No. 10 Delaware Avenue, Albany, October, '90. He was building up a nice practice, when he was taken ill, December 25th, '91, and death ensued January 1st, 1892. His remains were taken to his former home for burial. Dr. Whipple left a widow and two children.

DR. LOURIE ASHTON's history as furnished by his father, Dr. John Ashton, is as follows: Immediately after graduating at A. M. C., located in Hoosick Falls, N. Y., and although but 22 years of age, soon took a recognized position among physicians in that town. While attending cases of malignant diptheria he contracted the disease and died after three days illness, November 14, 1889, aged 29 years.

DR. WILL BURRETTE AMBLER died at New Lebanon, April 12, '87.

DR. FRANKLIN R. HAYS, Dr. Maurice Ten Brink, Dr. John N. Van Patten I am unable to discover anything relating to the time or place of death.

And now gentlemen your historian has almost completed his task. It only remains to subjoin a brief account of himself, and our class history will be as complete as it is in his power to make it. Let us hope the Angel of Death may deal more kindly with us for the next ten years than he has in the decade just passed and that we may meet once more in undiminished numbers at Alumni Hall in 1903.

Your historian has located at Ketchum's Corners, Saratoga county, and considers that he has established a fair practice. Is married and has one boy, two years of age.

WILLIAM S. DONNELLY,

HISTORIAN, CLASS OF '83.

The recording secretary read the following:

NECROLOGY.

- Dr. Sebastian F. Fonda ('41), at Sharon Springs, N. Y., January 27, 1892.
 Dr. Levi C. Frisbie ('41), at Vallejo, Cal., September 21, 1892.
 Dr. John Calhoun ('45), at Delhi, N. Y., April 21, 1893, aet. 73.
 Dr. Moses B. Pardee ('55), at So. Norwalk, Ct., November 9, 1892, aet. 71.
 Dr. George W. Sargent ('57), at Lawrence, Mass., January 1, 1893.
 Dr. James F. McKown ('66), at Albany, N. Y., August 25, 1892.
 Dr. Anthony P. Ten Eyck ('66), at Bloomingrove, N. Y., February 4, 1893.
 Dr. Orson F. Cobb ('68), at West Troy, N. Y., March 4, 1893.
 Dr. Joseph A. Flynn ('84), at Pittsfield, Mass., November 24, 1892.
 Dr. Ernest L. Angus ('85), at Colorado Springs, Col., April 9, 1892.
 Dr. Frank M. Hall ('90), at So. Hartford, N. Y., February 26, 1893.

The committee appointed to nominate officers presented the following report which was read by its secretary, Dr. Powell:

For President,

Dr. WILLIAM H. WOODRUFF ('54), Pine Bush, N. Y.

For Vice-Presidents,

- Dr. J. WILSON POUCHER ('83), Poughkeepsie, N. Y.
 Dr. WILLIAM L. PEARSON ('78), Schenectady, N. Y.
 Dr. ISRAEL M. SLINGERLAND ('83), Fayetteville, N. Y.
 Dr. FRANK A. PALMER ('82), Mechanicville, N. Y.
 Dr. HENRY B. WHITEHORNE ('73), Verona, N. J.

For Recording Secretary,

Dr. WILLIS G. TUCKER ('70), Albany, N. Y.

For Corresponding Secretary,

Dr. CHARLES M. CULVER ('81), Albany, N. Y.

For Treasurer,

Dr. SELWYN A. RUSSELL ('77), Poughkeepsie, N. Y.

For Historian,

Dr. EZRA A. BARTLETT ('79), Albany, N. Y.

For Members of Executive Committee (term three years),

- Dr. ALBERT VANDER VEER ('62), Albany, N. Y.
 Dr. MARTIN J. DWYER ('83), Albany, N. Y.
 Dr. JOHN B. STONEHOUSE ('71), Albany, N. Y.
 Dr. HENRY LA HANN ('78), Burlington, Wis.

On motion of Dr. T. D. Crothers, the report was accepted and adopted, and the recording secretary was instructed to cast a ballot on behalf of the association for the gentlemen named therein. This having been done, those named in the report were declared by the president duly elected officers of the association for their respective terms.

Dr. Mereness moved that a cabinet be provided by the executive committee, with pigeon-holes for the reception of historical reports, photographs, etc., of the various classes. Dr. Stonehouse offered an amendment referring the matter to the executive committee with power. Carried.

Dr. Stonehouse presented to the association his collection of catalogues of the college. On motion his gift was accepted with thanks.

The president-elect, Dr. Woodruff, being called upon made a short address, thanking the association for the honor conferred upon him.

The recording secretary announced the order of the exercises for the afternoon and evening, after which, no further business appearing, the meeting adjourned.

COMMENCEMENT EXERCISES.

The sixty-second annual commencement exercises of the Albany Medical College were held at Harmanus Bleecker Hall, on Wednesday afternoon, April 26, 1893, at 3 o'clock, in the presence of a large audience. Hon. W. L. Learned, vice-president of the board of trustees, presided and upon the stage were seated the members of the faculty, officers of the Alumni association and prominent citizens. The order of exercises was as follows:

MUSIC—Concert Overture in F,	-	-	-	-	<i>Kalliwoda</i>
PRAYER,	-	-	-	-	REV. JAMES MCLEOD, D. D.
MUSIC—"Musical Jokes,"	-	-	-	-	<i>Hamm</i>
ESSAY,	-	-	-	-	EDWARD MOSES BELL
MUSIC—Violin Solo; Nocturne,	-	-	-	-	<i>Chopin</i>

MR. W. J. HOLDING.

CONFERRING DEGREES, - By the Vice-President of the Board of Trustees,
HON. W. L. LEARNED.

MUSIC—Melange; "Trip to Chinatown,"	-	-	-	-	<i>Gaunt</i>
ADDRESS,	-	-	-	-	G. STANLEY HALL, Ph. D., LL. D.
President of Clark University.					

MUSIC—"Serenade Amusante,"	-	-	-	-	<i>Eilenberg</i>
VALEDICTORY,	-	-	-	-	JOHN BELCHER BEEBE.
MUSIC—Waltz; "Isle of Champagne,"	-	-	-	-	<i>Furst</i>
REPORT ON PRIZES AND APPOINTMENTS,	-	-	-	-	PROF. C. S. MERRILL, M. D.
BENEDICTION.					
MARCH—"Washington Post,"	-	-	-	-	<i>Sousa</i>

The following is a list of the graduating class:

Edward J. Bedell,	-	-	-	-	-	East Greenbush, N. Y.
John Belcher Beebe,	-	-	-	-	-	No. Egremont, Mass.
Edward Moses Bell,	-	-	-	-	-	Ellenburgh, N. Y.
Lewis Nye Bump,	-	-	-	-	-	Winfield, N. Y.
Edward Gilbert Cox,	-	-	-	-	-	Albany, N. Y.
Orville Curtis,	-	-	-	-	-	Ballston Centre, N. Y.
Herbert Edwin De Freest,	-	-	-	-	-	Troy, N. Y.
Robert Edwin Doran,	-	-	-	-	-	Albany, N. Y.
Aden Clarence Gates,	-	-	-	-	-	West Hebron, N. Y.
Robert Alexander Grant,	-	-	-	-	-	Providence, R. I.
John Sebastian Guinan,	-	-	-	-	-	Albany, N. Y.
Augustus Albert Guy,	-	-	-	-	-	Harpersville, N. Y.
Charles Webster Hamm,	-	-	-	-	-	Troy, N. Y.
Amos Wieting Hedden,	-	-	-	-	-	Syracuse, N. Y.
Charles Henry Herrick,	-	-	-	-	-	Sidney Centre, N. Y.
LeRoy Frank Hollis,	-	-	-	-	-	Sandy Creek, N. Y.
Anselme Ephrem Houle,	-	-	-	-	-	Cohoes, N. Y.
Ward Evans Hunt,	-	-	-	-	-	Little Falls, N. Y.
George Herbert Janes,	-	-	-	-	-	East Brimfield, Mass.
Thomas Williams Jenkins,	-	-	-	-	-	Scranton, Pa.
John Jones,	-	-	-	-	-	Holland Patent, N. Y.
Fisher M. Joslin,	-	-	-	-	-	Voorheesville, N. Y.
William Henry Laughlin,	-	-	-	-	-	Milltown, N. B.
Edward Morton Leach,	-	-	-	-	-	Glen, N. Y.
John Bell Ledlie,	-	-	-	-	-	Saratoga Springs, N. Y.
Patrick Thomas Markey,	-	-	-	-	-	Schenectady, N. Y.
Charles Edwin Marshall,	-	-	-	-	-	Cohoes, N. Y.
Theodule Morisseau,	-	-	-	-	-	Cohoes, N. Y.
Flavius Packer,	-	-	-	-	-	Smyrna, N. Y.
San Crombie Po,	-	-	-	-	-	Bassein, Burmah
Joseph William Racette, B. S.,	-	-	-	-	-	Joliette, Canada
Martin Silas Reid,	-	-	-	-	-	Voorheesville, N. Y.
George Lyman Richardson,	-	-	-	-	-	Syracuse, N. Y.
Collie John Robinson,	-	-	-	-	-	Northville, N. Y.
George Francis Rogan,	-	-	-	-	-	Rochester, N. Y.
John William Russell,	-	-	-	-	-	Seneca Falls, N. Y.
Thomas Addis Ryan,	-	-	-	-	-	Albany, N. Y.
Walter Brind Sabey,	-	-	-	-	-	Albany, N. Y.
Frank Burton Sanford,	-	-	-	-	-	Nicholville, N. Y.
William Campbell Sebring,	-	-	-	-	-	Saugerties, N. Y.
Melvin Sheldon,	-	-	-	-	-	Glenco, N. Y.
Joseph Benjamin Swett, Jr.,	-	-	-	-	-	Ashburnham, Mass.
Robert Hill Tedford, Jr.,	-	-	-	-	-	Albany, N. Y.
Lucas Grove Tuttle, A. M.,	-	-	-	-	-	Troy, N. Y.
George Henry Van Gaasbeek,	-	-	-	-	-	Olive, N. Y.
Louis Van Hoesen,	-	-	-	-	-	Hudson, N. Y.
Fred Dan Vickers,	-	-	-	-	-	Roseboom, N. Y.

John Stewart Wade,	-	-	-	-	-	Kortright, N. Y.
Percy Gardiner Waller,	-	-	-	-	-	West Troy, N. Y.
William Warner Wentworth, A. B.,	-	-	-	-	-	Pittsfield, Mass.

Dr. Merrill presented the prizes. He first read a report on the Vanderpoel prize endowed by Mrs. Gertrude W. Vander-Poel, in memory of her husband, the late S. Oakley Vander-Poel, M. D., for many years a professor in the college, stating this prize, consisting of a microscope and accessories, offered to the senior student passing the best bedside examination in general medicine, had been awarded to Lucas G. Tuttle; and that at the competitive examination for hospital positions, the following appointments had been made: St. Peter's hospital, Lucas G. Tuttle and Collie J. Robinson; Albany hospital, Thomas W. Jenkins, Robert E. Doran and Orville Curtis.

The prize offered by Dr. Vander Veer, for the best report of the surgical clinics, was awarded to Herbert E. De Freest, and the prize offered by Drs. Hailes and Morrow, for the second best report of these clinics, was awarded to William C. Sebring.

The prize, consisting of an ophthalmoscope, offered by Dr. Merrill, for the best report of the eye and ear clinics, was awarded to Herbert E. De Freest.

The prize offered by Dr. Townsend, to the student passing the best examination in physiology at the end of his first year of study, was awarded to Reed A. Sauter.

Dr. Boyd's prize, to the student passing the best final examination in obstetrics, was awarded to Edward M. Bell.

Dr. Bigelow's prizes, for the best dry preparations of the throat and of the nose, were awarded to Thomas A. Ryan and Fred Sauerbrie.

The prize, consisting of a case of surgical instruments, offered to the senior student passing the best final examination, by Dr. T. W. Nellis, was awarded to William H. Laughlin.

The prize offered by Dr. H. R. Powell, to the second year student passing the best final examination, consisting of a general operating case, was awarded to Charles H. Travell.

A prize, consisting of Gross' complete pocket case of instruments, offered by A. B. Husted & Co., to the first year student passing the best final examination, was awarded to Reed A. Sauter.

ALUMNI DINNER.

The twentieth annual dinner of the Alumni Association was held at the Delavan House, on Wednesday evening, April 26, 1893, at half-past eight o'clock. About one hundred and seventy-five were present, including members of the association, their guests and members of the graduating class. The *Menu* was as follows:

Oysters on Shell.	
Ox Tail a l' Anglaise.	
Rissoles of Lobster.	
Boiled Salmon Trout Chambord.	
Potatoes Parisienne.	
Chicken Croquettes a la Reine.	
Lamb Chops a la Jardiniere.	
Prime Ribs of Beef au Jus.	
Mashed Potatoes.	Stewed Tomatoes.
Turkey, Cranberry Sauce.	
Sugar Corn.	String Beans.
Punch a la Romain	
Chicken Salad.	Lettuce Salad.
Vanilla Ice Cream.	Champagne Jelly.
Fancy Cakes.	Fruit.
Coffee.	

After the tables had been cleared, cigars passed, and the "Alumni Ode" sung, the following toasts were responded to, Dr. Albert Vander Veer acting as toastmaster:

1. "Our Alumni Association," Dr. S. H. Freeman.
 2. "The Orator of the Day," Dr. G. Stanley Hall.
 3. "The Clergy," Rev. Dr. James McLeod.
 4. "The Legal Profession," Eugene Burlingame, Esq.
- A song was then sung by the glee club.
5. "The City of Albany," Rev. W. H. Buttrick.
 6. "The Faculty," Professor William Hailes.
 7. "Our President-elect," Dr. W. H. Woodruff.
 8. "The Day We Celebrate." Dr. J. N. Wright.
 9. "The Class of '93," Dr. San C. Po.

The "Parting Ode" was then sung to the tune of "Auld Lang Syne," and President Freeman in a few remarks, declared the reunion of '93 at an end.

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HOWARD VAN RENSSELAER, M. D., EDITOR.

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ANNOTATIONS.

Therapeutic Progress During 1892.—The occurrence of two epidemics during the year has necessarily diverted a great deal of attention from progressive study. Influenza in the earlier part of the year and cholera in the autumn produced a crop of specifics of which little need be said beyond noting that the efficacy claimed for them was, as usual, greatest during the decline of the epidemics. Notwithstanding such, honest work has been done towards giving greater precision to the knowledge of the value of older remedies, and also towards the investigations of the claims of the many new drugs. One most curious phase of the year has been the persistent effort to prove the utility of various extracts and juices derived from the animal kingdom. This has been most marked in the treatment of myxœdema; extract of thyroid gland has been injected subcutaneously; patients have been fed on fresh thyroid glands, and an extract of thyroid gland has been given per mouth, while, from the surgical side, several cases of thyroid grafting have been reported.

Dogs' serum has been used in tuberculosis and ox serum in syphilis, and it is reported that the serum of lambs' blood gave equally good results in the latter disease. Injections of testicle juice have been employed in cancer and in tuberculosis, while an extract of suprarenal capsules is said to have renewed vitality in moribund animals. Another subject that has attracted considerable attention is the employment of normal salt solution in various

forms of collapse, whether due to vomiting, diarrhœa, or profuse hemorrhage such as that occasionally met with in midwifery. The value of digitalis in various forms of cardiac failure has given rise to considerable discussion; although some writers have urged that it should be used in aortic regurgitation, and others have held that it is dangerous in this condition, there seems to be a consensus of opinion that its employment should be determined by symptoms of cardiac failure, whether this failure be associated with aortic or mitral regurgitation. At the meetings of the British Medical Association at Nottingham a discussion was held upon cardiac tonics, when the value of digitalis was again considered in its relation to other cardiac tonics; experience appeared to indicate that the simultaneous use of caffeine and digitalis would often be more effectual than an increased dose of digitalis alone. The cardio-vascular action of theobromide and caffeine has been further investigated; under erythrophleum, patients with heart disease are said to breathe more freely, but an examination of the physiological action of the active principles of urechites indicates that from its cumulative properties its future employment as a cardiac tonic, is improbable. Arsenite of copper in anæmia, the use of atropine as a hemostatic, and the value of camphorated oil in cases of collapse have also received attention. The administration of oxygen in various acute respiratory affections led to numerous communications; it was employed together with strychnine in pneumonia, alone in a severe case of broncho-pneumonia following influenza, and it was also recommended in asthma. Rectal antiseptic injections in epidermic influenza, and in advanced phthisis with large cavities, have won more commendation. In the treatment of vomiting, hydrochloric acid and strontium bromide have been recommended; chlorobrom has been used for sea-sickness and solanine for painful disorders of the stomach; salicylate of bismuth has been used in infantile diarrhœa, having given good results even in phthisis. Thymol has been vaunted as an anthelmintic, but its range of application appears to be very restricted. The action of diuretin has in some cases appeared to cause diarrhœa, in others the amount of urine passed seemed to decrease rather than increase, but in many cases of cardiac dropsy it has been used with great satisfaction.

The Croonian lectures on chemistry and therapeutics of uric-acid, gravel and gout must also be mentioned in this connection.

An interesting question has been raised as to the action of quinine in malaria and the possibility of the associated hæmaturia being the result of quinine or being made worse by it.

Salts of strontium have been recommended for the albuminuria of nephritis and methylene blue, which deeply colors the urine, has been suggested in the case of neurotic patients. Exalgine has been used with some advantages in cholera, but for relief of pain it appears to be somewhat disappointing.

Bromide has been employed in a number of ill-defined cases of neuralgia. Carbolic acid has been injected hypodermically for tetanus. The bearing of recent physiological and chemical research on the question of anæsthesia formed one for the subject discussed at Nottingham, while the toxic action of impure chloroform and the comparative action of different brands of chloroform have been closely studied. The search for new hypnotics happily appears to be on the wane; trional and tetronal are said to be more prompt than suphonal, but not superior to hyoscyne in cases of great mental excitement.

Paraldehyde has received praise both as hypnotic and diuretic, and somnal—a new hypnotic—has not been sufficiently employed to allow of definite conclusions. Typhoid fever has been assailed by newer methods; chloroform in repeated small doses, calomel, salicylate of soda, creasote, naphthalin, and alpha-naphthol have found adherents. Salipyrin in rheumatism and salophen in diseases allied to rheumatism. The antidotal action of chlorite of gold against snake poison has been disputed. Pilocarpine has been recommended in prurigo senilis and in selected cases of labyrinthine deafness, as have dermatol and euophen in syphilis, and hydrogen peroxide as a diagnostic agent for detecting the presence of pus.

Among the legion of newer remedies the following may be mentioned: soveol, solutol, thymacetine, saprol, hæmol, hæagallol, losophan, and salophen, the last named being a convenient abbreviation for a combination of salicylic acid with acetyl-para-amido-phenol ether.—*The Lancet*.

Citrous Fruits.—The citrous fruits have always been recognized as cooling and beneficial in febrile conditions. Within the past few years the grape-fruit has become an especial favorite in the sick-room and at the table, the slight bitter of the covering and the delicate acid acting not only as a febrifuge, but as a tonic.

In the Imperial Health Office of Germany experiments have recently shown that the bacteria of cholera, when brought in contact with the cut surface of oranges, lemons or grape-fruits, are destroyed in a few hours. Since these results have been obtained the Imperial Health Officers consider it unnecessary to place any restrictions on the transit and sale of these fruits, even if it should be ascertained that they come from places where cholera is prevalent at the time. Not a single instance was noted in which cholera was disseminated by either oranges, lemons or grape-fruit; on the contrary, the free use of these fruits seemed to act as a preventive, not only to cholera, but to bilious and typhoid conditions.—*Medical Times*.

To Disguise the Taste of Chloral.—Dr. E. Holland says that chloral may be taken very pleasantly in the ordinary bottled lemonade. The requisite dose of chloral, dissolved in sirup, is placed in a glass with a little water, and the tumbler is then filled up with bottled lemonade. The taste of the drug is thereby almost entirely disguised, while its hypnotic effect is in no way imparted.—*Medical Record*.

The Treatment was Successful, but the Consequences were Deplorable.—The Journal d'Hygiene produces the following harrowing account from the Gazette Salulaire of August 12, 1773: The wife of a baker in Aubusson being attacked with a dangerous disease, the physicians ordered a sweat. The husband thought that the most efficacious means of bringing this about would be to surround the patient with loaves fresh from the oven. The model diaphoretic acted like a charm, and the woman was well in twenty-four hours. The thrifty baker was delighted, but saw no reason for wasting so much good bread, and accordingly disposed of it to his customers. But all who ate of the bread were attacked by the same disease, which spread then so rapidly that more than two hundred persons died within a fortnight. "The gates of the city are now closed against everybody, the consternation is general, and the unfortunate inhabitants are imploring the aid of heaven to deliver them from this horrible scourge."—*Medical Record*.

Water at the Fair.—The citizens of Chicago, or at least, the World's Fair Commissioners, have discovered the fact that the drinking water supplied to their town is not exactly to be commended as a hygienic beverage. They have made an arrange-

ment with a natural spring company, in Wisconsin, to supply the drinking water for the fair grounds, and as the water is obtained over a hundred miles from Chicago, it may be pretty confidently pronounced drinkable.—*The Medical Record*.

Removal of Mother Marks.—The Allgemeine Medicinal Central Zeitung gives the following as very efficacious: Mix one part of tartrate of antimony with four parts of emplastrum saponatum and work into a paste. Apply the mixture over the mark to be removed to the depth of one line (one-twelfth inch,) and cover with slip of gummed paper or court-plaster. On the fourth and fifth day suppuration sets in, and in a few days later scarcely a sign of the mark can be seen.—*N. Y. Medical Times*.

Regulations Concerning Patent Medicines in Europe.—It appears from an American consular report, that the regulations of several European countries concerning patent medicines are a good deal more stringent than those of Great Britain. In Austria-Hungary prepared medicines, whether patented or not, unless imported for druggists, require a special permit from the customs authorities. All medicines and medical compounds are excluded from protection by the Austrian Patent Law, and the sale of such is permitted only to, and in, drug stores. In Belgium, patent medicines can only be sold by apothecaries or other authorized persons, and must bear the seal of the seller, who assumes the responsibility of the product. In Denmark the sale is confined to apothecaries. France entirely prohibits the sale of secret medicines unless they are approved by authority and the formula is inserted in the official formulary. In Germany all proprietary medicines must be retailed by a regularly sworn and licensed apothecary, who is responsible for their effect on the patient; but the most serious restriction is the prohibition of advertisements of medicines in public journals when such medicines are made by a secret formula or process. This law is regularly enforced in Baden and Prussia, but less stringently so in Wurtemberg, Bavaria, and some parts of Northern Germany, while in Saxony the authorities exercise the right of prohibiting the sale altogether. In Italy the composition of a patent medicine must be approved by the board of health. No patent medicine is allowed entry into Russia unless special permission is on each occasion obtained from the Medical Department of the Minister of the Interior. If, after careful examination, it is proved that the production of such

medicine requires elaborate work and expensive apparatus, it is allowed entry subject to a duty, provided such medicines are regarded as beneficial and are compositions durably preserved. In Sweden, Switzerland and Turkey there are but few restrictions. —*Medical Record.*

Simple Tests for Impurities in Water.—The following methods of determining the presence of impurities in water are given by Walling: 1. For organic matter put a little of the sample into a beaker, add two or three drops of dilute sulphuric acid and color distinctly with a solution of permanganate of potassium. If much organic matter is present the color of the permanganate becomes discharged almost immediately; if less or very little, it takes longer to decolorize. If the color has not changed in twenty-five or thirty minutes it is safe to assume that organic matter was not present. This is a tolerably reliable test. 2. For nitrites, a little sulphuric acid added to the water forms nitrous acid if nitrites are present, which is easily detected by its power of liberating iodine from iodide of potassium. A little starch paste is mixed with a small quantity of a solution of potassium iodide, and the mixture added to the suspected water containing the sulphuric acid. If nitrites are present the nitrous acid formed liberates the iodine from the iodide, which turns blue with starch. This indirect method is a ready means for detecting the nitrites if present in not too small a quantity. 3. Nitrates are detected by converting into nitric acid, which turns morphia red. A portion of water is evaporated to dryness, the residue treated with a drop of strong sulphuric acid (which makes nitric acid of the nitrate) and a portion of morphia added. If nitrate is present the morphia gives red color. 4. For ammonia, Nessler's reagent is by far the best test. It may be made by dissolving eighteen grains of oxide of potassium in a little water, adding solution of mercuric chloride until the red indode of mercury first formed redissolves upon agitation. To this is added a solution of fifty grains caustic potassa and distilled water to make eight ounces. This reagent will detect 0.00375 of a grain in a pint of water by giving a yellow color. A reddish color or precipitate forms with larger quantities of ammonia. 5. Albuminoid matter requires a more elaborated proceeding for its detection. If all of the above were found it is hardly necessary to go to the trouble of looking for albuminoids; the water would be unwholesome even if they were not present. —*Pharmaceutical Era.*

Vaccination.—Cathell (Maryland Medical Journal) suggests the following to prevent the very bad arm that often follows vaccination with bovine virus. Those in charge of the patient should try daily to raise the scab after the twenty-first day and remove it as soon as it is found to be detachable; next to mop and dry the sore, letting the air glaze the exposed surface before re-applying the clothes. When the edges are loose, but the crust is held by a strong and fleshy core at the centre, the loosened margin should be cut away with scissors, including as much as possible of the central core itself. The sore is then dressed, with a salve or dusted with aristol, iodoform or eucrophen, if necessary. The writer thus concludes: "This not only prevents the excessively sore arm and chronic ulcer, with its burrowing, corroding, and tissue-absorbing pus, with the huge and unsightly keloidal cicatrix, but also secures the characteristic scar with its series of minute depressions or pits which unmistakably prove that it is the relic of a genuine Jennerian vesicle."—*Buffalo Med. and Surgical Journal*.

REVIEWS AND BOOK NOTICES.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs.—By John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico Chiurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association, Fellow of the Medical Society of London, etc., etc. Second Edition. Revised. In Two Royal Octavo Volumes. Volume I, 353 pages; Devoted to Pharmacy, General Pharmacology, and Therapeutics and Remedial Agents not Properly Classed with Drugs. Volume II, 680 pages; An Independent Volume upon Drugs. Volume I, in Cloth, \$2.50 net; Sheep, \$3.25 net. Volume II, in Cloth, \$3.50 net; Sheep, \$4.50 net. Philadelphia: The F. A. Davis Company, Publishers, 1914 and 1916 Cherry Street.

This text book is so well known that an extended review is unnecessary. It will be sufficient to point out some of the changes that have taken place in the two editions and to call attention to the *terminology* new matter.

In the former edition the first volume was written by Dr. Auld, since that time this gentleman has severed his connection with the work and the task of writing the book has been accomplished by Dr. Shoemaker who also wrote the second volume.

Though he has taken up the subject in a somewhat different manner from his predecessor yet they are ably and carefully written.

In the second volume the drugs which have been introduced since the first edition was published are discussed in the appendix.

Among them may be mentioned trichloroacetic acid, cantharidate of potassium, euphorin, euophen, phenocoll, piperazin, benzo-caphthol, losophan, methylene blue, chloralose, salophen, strontium, thallin, and other substances.

The most recent knowledge of the action of tuberculin, is also incorporated, together with a short mention of the employment of animal extracts and juices. And also the treatment of nyctædema by means of an extract of the thyroid gland.

It seems a pity, now that the new pharmacopœa is so soon to use the metric system in all its weights and measures, this system being adopted throughout the U. S. Pharmacopœia of 1890, that the author did not give the doses of all the drugs in both the metric and apothecaries systems.

The omission of this most important change will probably require a new edition of the second volume within a year or two.

With this exception the work meets all the requirements of practitioners and students, and is thoroughly abreast with the latest additions to our *Materia Medica* and the most recent aspects of modern therapeutics.

Diet for the Sick.—By Miss E. Hibbard, Principal of Nurses Training School, Grace Hospital, Detroit, and Mrs. Emma Drant, Matron of Michigan College of Medicine Hospital, Detroit; to which has been added Complete Diet Tables for various diseases and conditions, as given by the highest authorities. Detroit, Mich., The Illustrated Medical Journal Co., publishers. Paper, 74 pages. Price, postpaid, 25 cents; 6 for \$1.00.

This little book is a worthy supplement to any cook book, as it deals only with the dishes suitable for the sick and convalescent; the receipts being favorite ones in use daily in the hospitals wherein the authors are employed. To this has been added the various authorized diet tables for use in anæmia, Bright's disease, calculus, cancer, chlorosis, cholera infantum, constipation, consumption, diabetes, diarrhœa, dyspepsia, fevers, gout, nervous affections, obesity, phthisis, rheumatism, uterine fibroids. It also gives various nutritive enemas. The physician can use it to advantage in explaining his orders for suitable dishes for his patient, leaving the book with the nurse.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received.

The Internal Treatment of Lupus Erythematosus with Phosphorus. By L. Duncan Bulkley, A. M., M. D.

Skin Grafting upon the Cranium. By F. C. Schaefer, M. D.

Brain Surgery. By F. C. Schaefer, M. D.

Papoid Digestion. By R. H. Chittenden, Ph. D.

Practical Experiments of the Treatment of Cholera in St. Petersburg, Russia, and Hamburg, Germany, in the Epidemic of 1892. By Elmer Lee, A. M., M. D., Ph. D.

A Monograph on Cascara Sagrada. Pub. by Frederick Stearns, Detroit, Mich.

A Remarkable Respiration Record in Infantile Pneumonia. By W. A. Edwards, M. D.

Methods of Precision in the Investigation of Disorders of Digestion. By J. H. Kellogg, M. D.

Vertebral Surgery, with Reports of Three Cases, and a New Method of Operating in the Dorsal Region. F. C. Schaefer, M. D., Chicago.

Free Incision of Abscess of Ostitis of Hip; and Closure without Drainage. By H. Augustus Wilson, M. D.

Practical Details in the Preparation of Plaster of Paris Bandages. By H. Augustus Wilson, M. D.

A Clinical Lecture on the Prevention of Idiopathic Rotary Lateral Curvatures of the Spine. By H. Augustus Wilson, M. D.

On the Relation of Eczema to Disturbances of the Nervous System. By L. Duncan Bulkley, A. M., M. D.

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Disease and Immunity.*

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COLLEGE.

There is nothing in medicine that can be of greater interest nor of more fundamental importance than the question as to what disease essentially is, and how recovery from it is effected by forces within the human body; for, from a study of how the body frees itself from disease, many valuable therapeutic ideas may be obtained.

Disease may be defined as disordered physiological action and, therefore, can occur only in living beings. A machine—a clock for instance—may get out of order and exhibit disordered action, but it cannot be diseased; for when a clock is out of order it shows no tendency to get in order again; but such a tendency is precisely what a living being does exhibit in disease and the alteration of the physiological processes into pathological ones has the result, in many cases at least, of removing from the body the harmful thing which was the cause of the disordered action. Sometimes this curative nature of the pathological process is very plain. Thus, when some harmful and irritating substance is in the alimentary canal it is frequently expelled by vomiting or by diarrhœa. Every physician understands this and frequently gives emetics or cathartics to aid the body in ridding itself of the

*Read before the Albany County Medical Society on April 25, 1893.

harmful substance. In most cases of disease, however, the reason for the pathological processes is not so evident, but is, perhaps, less obscure where the cause of the disease is most plain, as in surgical injuries.

In bullet wounds the passage of the bullet through the tissues must of necessity injure nerves and blood-vessels and must, therefore, at once give rise to pain and hemorrhage; two symptoms which may be very troublesome but which are, nevertheless, beneficial. The pain is a warning of injury done, marks the place of injury and prevents injurious motion of the injured part. We have no time to-night to enter into a discussion of the value of pain but certainly when it occurs it usually does more good than harm. Generally it serves as a warning that the body has been injured and is in need of aid, and whether it occur in the familiar form of occipital neuralgia from over mental strain, or in the rarer form of supra-orbital neuralgia from glaucoma, or in the form of slight pain in the leg from incipient hip disease, it is a warning that can never be disregarded with impunity. This troublesome, yet beneficial sense of pain may have been developed as the result of many centuries of action of the law of the survival of the fittest, those animals and persons that were the most sensitive to pain being those most likely to live and propagate their like. We doctors all know delicate individuals who have suffered pain all their lives and in consequence have been so careful of themselves that they have outlived most of their robust friends. The uses of bodily and mental pain are certainly many.

The hemorrhage is also beneficial for it tends to wash dirt and foreign substances out of the wound, which it closes with a solid clot so that no foreign body can thereafter enter. We all know in case we prick our finger with a poisoned needle how desirable it is to have the wound bleed freely so that the poison may be washed out. Both the pain and the hemorrhage, then, although they are inevitable from the anatomical structure of the body, yet, at the same time, serve a useful end.

The other symptoms of the bullet wound vary in different cases. If the bullet is a clean one it causes but little disturbance; the blood vessels in the neighborhood of the wound dilate slightly and the blood serum and the white corpuscles pass through their walls in moderate amount. Some of the white corpuscles pick up little shreds of tissue destroyed by the bullet in its course, which have undergone fatty degeneration and carry them, together with portions of the degenerated blood clot, away through the lymphatic vessels. Other white corpuscles become spindle shaped and develop into connective tissue which converts the track of the bullet into a band or scar of connective tissue and in many cases encapsulates the bullet itself and thus practically puts it out of contact with the tissues of the body.

The process is quite different if dirt enters the wound along with the bullet. Almost all dirt contains germs and especially common in it are the germs of suppuration: the streptococcus pyogenes and the staphylococcus pyogenes albus and aureus. The germs carried by the bullet into the body find there warmth, moisture, darkness and nutriment: conditions favorable to their growth and multiplication and consequently their number increases rapidly. Now it has been found as the result of experiments on animals that many bacteria, probably the majority of them, have in their body, whether alive or dead, a proteid substance which exerts a strong attractive power on the white blood corpuscles. If a few of these bacteria are placed in the closed end of a capillary tube and the tube is stuck underneath the skin of an animal, white corpuscles will migrate through the walls of the blood vessels and swarm into the tube towards the bacteria. We all know that when the bacilli tuberculosis enters the tissues, the tissue cells and the white blood corpuscles crowd around the bacilli and form the initial lesion of tuberculosis: the miliary tubercle. If dead bacilli tuberculosis are injected into the body they are quickly surrounded by a mass of cells just as are the living bacilli and a typical miliary tubercle is formed which, of course, shows no tendency to enlarge because the dead bacilli cannot multiply.

To this power of attraction which bacteria possess the name "chemiotaxis" has been given.

In consequence of this chemiotaxis the bacteria which have entered the body with the bullet and have multiplied, cause an immense exudation of white blood corpuscles from the blood vessels, so much so as to cause a decided redness and swelling of the part; the characteristic symptoms of inflammation. It has been further found as the result of experiments that bacteria are destroyed by the serum of the blood and also that bacteria more or less weakened by the action of the blood serum are taken into the interior of the white blood corpuscles and there destroyed: so that the power of destroying the bacteria resides both in the blood serum and the white corpuscles. This germicidal power of the blood varies very much in different animals, the blood of certain animals destroying certain kinds of bacteria and having no effect on others.

This attribute, therefore, which the bacteria possess of attracting the white corpuscles is a powerful element in their destruction, for the blood serum and white cells pour from the vessels and surround and tend to destroy the bacteria, while the latter in virtue of their vitality tend to resist destruction and to multiply. Thus there is formed about the bullet an ever increasing amount of a mixture of bacteria, blood serum and white corpuscles which is called pus. This pus tends to work its way along the track of the bullet towards the point of least pressure, i. e., the surface of the body, and it may be present in such amount as to work the bullet along with it and thus discharge it from the body. In favorable cases the bullet with the pus and millions of bacteria are cast out of the body and a barrier of blood serum and white corpuscles exuded from the vessels serves to protect the body from an invasion of bacteria. As the bacteria become less numerous some of the white corpuscles, not being needed in the work of destruction, become elongated and form connective tissue which supplies the defect in the tissues and remains as a scar and marks the spot of the healed wound.

In unfavorable cases the bacteria break through the barrier of serum and corpuscles and penetrate deeper into the tissues. They pass to the adjacent lymphatic glands and cause there a hyperplasia of lymph cells which may be their destruction. They cause the veins and arteries of the tissues to be closed by infective thrombi, portions of which may be washed off and cause metastatic abscesses in remote parts of the body. Wherever the bacteria go or are carried they exert their chemiotaxic action and then ensues a conflict between the bacteria and the serum and white corpuscles, an abscess being the result and the scene of the conflict, and each abscess marks the local action of the bacteria.

Besides this local action there is also a general action. Whenever pathogenic bacteria grow they produce certain chemical products such as ptomaines and toxalbumens, of which the latter when absorbed by the blood produces certain general disturbances of the system. It is easily possible to study the action of these toxalbumens separately from that of the bacteria. To do so it is merely necessary to let the bacteria grow in suitable fluid media and to filter the resulting pure culture through a porcelain filter. The bacteria are retained in the filter while the products of their growth pass through into the filtrate, which can be injected, germ free, into the body of an animal and its effects studied. In the case of the germs of suppuration the toxalbumens produced when injected into the body cause the septic fever with which we are all so familiar in septicaemia and which we commonly find in cases of suppurating wounds.

The reaction of the body to the bullet wound is still different if, instead of the germs of suppuration, a slender rod-shaped bacillus called the bacillus of tetanus enters the wound. This bacillus produces very slight local disturbance, but as it grows in the tissue it produces several important toxalbumens, one of which has been isolated as a white crystalline substance to which the name tetanine has been given. These toxalbumens when injected into an animal produce the lockjaw, convulsions and the other general symptoms of tetanus. The striking

and characteristic symptoms of tetanus are, therefore, not due directly to the bacteria but to the toxalbumens which these bacteria produce. Now it seems to have been established by experiment that although a small amount of the toxalbumen injected under the skin causes tetanus and death, yet if the toxalbumen has been previously mixed with trichloride of iodine or if immediately after the injection of toxalbumen trichloride of iodine is injected at the same point the animal will not die, and may exhibit only slight, or even no symptoms of the disease. Furthermore, an animal thus treated is found to be less susceptible to tetanus, it will bear with impunity an injection of toxalbumen or of the bacilli of tetanus, which would certainly kill another animal of the same kind and size. If on the same animal repeated injections of regularly increasing strength of the toxalbumens or of the bacilli of tetanus are made, the animal gradually attains a high degree of immunity and can bear with impunity injections of large amounts of the most virulent bacilli. It has thus been possible to definitely establish the fact that there are all degrees of immunity.

By further experiments the very remarkable fact seems to have been established that if a little of the blood serum of this highly immune animal is injected into another, this second animal is rendered immune to tetanus and can bear inoculations of the bacilli which would kill an ordinary animal, and further that an injection of this blood serum will not only prevent the disease but will cure it when present. It requires, however, much stronger or much larger quantities of serum to cause a cure than to confer immunity and especially so in the later stages of the disease. The curative element in the blood serum is unknown, but to it the name of antitoxine has been given. This antitoxine is inimical only to the toxalbumen and not to the bacteria, for the bacillus of tetanus will grow in the body of a highly immune animal. The rendering of an animal highly immune takes a long time, but already as the result of months and years of work, large animals, such as horses, have been rendered highly immune to tetanus and

their blood serum (obtained by blistering or by defibrinating blood) has been injected into at least eight men suffering from this disease causing a cure in every case. In using the blood serum in cases of human tetanus the animal should be rendered so highly immune that it can bear one million times the dose that will kill an ordinary animal, and at least 50 ccm. of such serum must be injected in the course of two days. Of course in order to get so much serum large animals must be rendered immune.

Exactly the same series of experiments as were conducted in this study of tetanus have been conducted in the study of diphtheria and have led to exactly the same results, and although the number of cases of human diphtheria treated by this method is few, yet there is reason to hope that in the blood of animals rendered highly immune to diphtheria we have a certain cure for this disease than which there are few more dreaded by physicians.

Somewhat similar results have been obtained in pneumonia. It has been found that the blood serum of animals which have been rendered highly immune to pneumonia, will render other animals immune for this disease or will cure them of it. Klemperer has treated twelve cases of pneumonia in men by the repeated injection of 5 to 10 ccm. of blood serum, of rabbits made immune to pneumonia by injections first of warmed cultures and then of increasing doses of living pneumococci. All the cases made a complete recovery and, in seven of the cases at least, great improvement in the general symptoms seemed to be directly due to these injections. In no case did the injections have any effect on the local lesions in the lungs. Klemperer continued his investigations further and concluded that the toxalbumen was destroyed by a temperature considerably below 60° c., while that substance which was the active agent in producing the immunity was not destroyed by a temperature below 70° c., and that the production of the curative substance from the immunising one begins to take place in animals in twenty-four hours and is ended in two or three days. Starting from these facts Klemperer has

treated eight cases of pneumonia in men by the injection of concentrated cultures heated to 60° c. All of these cases, among whom were severe cases, one with valvular cardiac disease and another in an old man, made a good recovery and in each case a gradual fall of temperature occurred from twelve to twenty-four hours after the injection.

I do not intend to weary you with a recapitulation of all that has been done in this line of research and have only time to allude briefly to two other diseases, which on account of their great importance merit some mention.

It has been found that the blood of patients convalescent from typhoid fever has no power to destroy the typhoid bacilli, yet when mixed with them it destroys their virulence and the mixture can be injected into animals with impunity. It has indeed been proposed to use the blood serum of hospital patients convalescent from typhoid fever to cure other patients in the hospital suffering from the disease.

Finally it has been found that the blood serum of patients convalescent from cholera when injected into an animal confers on the animal a certain degree of immunity from cholera. If a culture of the comma bacillus of cholera weakened by exposure to air at a somewhat elevated temperature (39° c.) is first injected into a human being, as has been done in a number of cases, later the strong cultures may be injected without producing the disease and the blood serum of a man thus rendered artificially immune to cholera is much more powerful than the blood serum of a man convalescent from cholera in conferring immunity from this disease to an animal into which it has been injected. Such injections of the cultures of the comma bacillis in man cause considerable local pain.

If now, without going into any further detail, we consider for a moment the results to which our study has led us we will see that the blood, which in health supplies nutriment to the tissues, protects in disease these same tissues from harm.

Pathogenic bacteria injure the body in two entirely distinct ways; first, locally, by their growth and multiplication, and second, generally, by the toxalbumens which result from

their growth. Locally the blood serum and the white blood corpuscles destroy the bacteria and their destruction is rendered more certain by the chemiotaxic action which the bacteria themselves exert. The general action of the toxalbum, or the products of bacterial life, is neutralized and destroyed by the antitoxine which is formed in the blood serum in consequence of the presence in it of these products of bacterial life. Thus both the bacteria and the products of their life and growth are the direct cause of their own destruction.

It requires much less antitoxine to produce immunity than to cure the disease and, therefore, although an animal may be naturally immune to any disease, yet his immunity is not usually sufficiently great that his blood serum can be used to cure the disease in, nor even, in most cases, to confer immunity upon another animal. In order to get blood serum of sufficient strength to confer immunity on another animal, the first animal must have been artificially rendered highly immune. The offspring of highly immune animals are themselves immune and certain experiments seem to prove that the milk of a highly immune animal can confer immunity when injected into the body even in very small quantity.

Up to this point we have considered only one way of rendering animals immune; i. e., by trichloride of iodine, but there are many other ways in which it can be done. The usual method of producing immunity is by the injection of the bacteria or the filtered products of their growth, which have been weakened by exposure to heat, or cold, or chemical agents, or by long exposure to the atmosphere and light. Then repeating the injection with cultures not so much weakened and gradually increasing the strength of the injections until finally large quantities of the strongest and most virulent cultures are employed; the strength and virulence of a germ being always measured by the amount of the toxalbumen which it will produce. Thus the animal is gradually rendered more and more immune until he attains such a high degree of immunity that his blood serum becomes of value

in producing immunity and cure in other animals in which it is injected.

This idea of gradually acquired immunity enables us to explain many facts that have been only half understood. Thus we have long known that in epidemics of cholera diarrhœas are prevalent and that in epidemics of diphtheria various forms of sore throat are common, and that in the beginning of an epidemic the cases are much more fatal than they are towards the end. In the light of these researches it seems that these diarrhœas and sore throats might be mild cases of cholera and diphtheria respectively and were mild cases of inoculation resulting in rendering the system somewhat immune. It may well be that a mild inoculation may take place without producing any actual diarrhœa or sore throat; such results frequently occurring in the inoculation experiments on animals. Of course if persons leave the infected locality they are not rendered immune and if they return before the epidemic is entirely over they are much more susceptible to the disease than those who have remained in the locality during the epidemic, and this tallies with actual experience. We probably all know that there is more danger for children returning to a house after cases of diphtheria have occurred in it than for children who have not left the home. In inoculation experiments it has been found that young animals are more susceptible than old ones and such we know is the case in human beings. An old man has probably often been mildly inoculated and rendered partially immune for diseases from which he has never actually suffered. The fundamental principle on which this whole theory of immunity is based has been turned to practical account long since in vaccination against small pox, and in further confirmation of this theory Sternberg has recently found that calves cannot be vaccinated by vaccine lymph which has previously been mixed with blood serum of vaccinated, i. e., immune calves, although they are susceptible when vaccinated with the same lymph when mixed with the same quantity of blood serum taken from non-vaccinated calves.

We have thus studied in outline the results of some of the researches on which a new method of therapeutics, "The blood serum therapeutics," is based, which system is founded on nature's own method of cure. As yet the whole matter is in its infancy and doubtless many of the statements made above will in time have to be modified or changed, but making every allowance for mistakes due to too great enthusiasm and to too hasty publication of results, there seems to be good ground for the hope that we are at the beginning of a path in therapeutics which will lead to magnificent results. This system of therapeutics is based on a careful study of bacteria; a study which in surgery has resulted in an advance which has been little short of marvellous and which now promises an even more brilliant advance in internal medicine.

A Case of Peritonitis Thirty-Three Hours, Autopsy, and a Successful Herniotomy.*

BY A. T. POWELL, M. D.

P. G., age 31, unmarried switchman, mother living and well, father dead. He had always enjoyed fair health; years ago had some trouble with bowels and ever since if he lifted, was subject to abdominal pain. I saw him first August 8th, 10 a. m., and learned he ate his supper the previous evening and commenced work at 6 p. m. About 9 p. m. complained of abdominal pain and diarrhoea, at 11 p. m. was sent to his home one-half mile distant and he had pain and diarrhoea all night. When I first saw him, 10 a. m., he laid with thighs flexed, eyes intensely congested, respiration thoracic, abdomen on inspection normal, but could not palpate or percuss it on account of the tenderness; tongue white heavily coated; pulse 135, hard and wiry, temperature 103. I ordered turpentine fomentation to the bowels, and gave morphine, one-half grain, hypodermically. In about two hours I was recalled and learned that cyanosis had oc-

*Read before the Medical Society of the County of Albany January 25th, 1893.

curred one-half hour after I had left. I found him in an 8x10 bedroom directly under the sun baked roof. Though the temperature was 90 in the shade the one window was closed, and one man and five women were solemnly watching the tragic scene of a man gasping for the air of heaven which their more lusty bodies were depriving him of. On driving them all out and raising the window I saw, as the respiration improved, the aerated blood give to the darkened lips a ruddy hue, to the colored ears a lighter shade. The cardiac action was labored, there was a slight mitral insufficiency, the pupils were normal, the pulse 135, the temperature 102, at 2 a. m., when I last saw him, and there was some cyanosis. The bowels never moved after the first hypodermic. The watcher said 6 a. m., 31 hours after he left his work, he suddenly ceased to breathe and died without a struggle. We obtained permission of the family to open the abdomen. There was present besides myself Dr. F. G. Mosher. Dr. H. N. Johnson performed the autopsy at 12 m. The cyanosis had disappeared, pupils were normal, rigor mortis not marked, parietal surface of peritoneum in median line normal, Visual surface congested. There were in the abdominal cavity about five ounces of serous exudation. There were many bands of adhesion between the intestines in right hypochondriac region to the stomach and also posteriorly to the peritoneum. The intestines were highly congested and inflamed. The highest grade of inflammation was near the adhesion and posteriorly, and also in the pelvis. The intestines were comparatively empty and at no place were they constricted by the adhesions. Their mucous surface was highly congested. The stomach contained about 12 ounces of undigested potatoes the size of walnuts. The mucosa was so congested that in some places it almost seemed denuded of its epithelial covering. The potatoes must have been ingested 36 hours before death.

A Successful Herniotomy.—J. Page, 29, American, mother living, father dead. Patient had a congenital hernia, and was taken when a baby to Dr. March who after trying

many appliances said it never would be cured without an operation. He has had much trouble to obtain a suitable truss. The rupture had come down many times and he had always been able to reduce it till the morning of May 5, '92. It then came down when he was one mile from home working at a bench. He tried taxis, was inverted, but all without the desired result. He walked home. I was summoned and driving five miles west of Coeymans I found the patient, a healthy, muscular man, lying on the bed, in the greatest agony. He was vomiting and the scrotem was elevated at right angles with the body six inches and was distended by the hernia to the diameter of four inches. I immediately gave hypodermically morphine sulph., one-third of a grain. After trying taxis with the hip elevated, ineffectually, I employed hot applications. As the pain continued unabated in an hour I repeated the hypodermic, one-third of a grain. After practicing at intervals for two hours, taxis, I dispatched a messenger for my surgical case and also a messenger to any M. D. that would respond. Dr. Shaw, of N. B., now Huntington, L. I., came out and after carefully examining the case agreed with me that an operation was justifiable. Then eight hours after incarceration we made ready for the operation in a house that, garden included, would rent for \$1.00 per month. Even that house contributed soft water from one of nature's springs that had never been contaminated with sewage, a fire to boil it and a low back breaking table. While waiting for Dr. Shaw, I had as a pastime, given my hands a longer and more thorough scrubbing than even the rigorous German would require. The tumor and adjacent parts were thoroughly washed with soap and water, shaved and washed with bichloride. After the patient was anæsthetized, both Dr. Shaw and myself made a fruitless effort with taxis. After washing thoroughly again I began the operation, cutting in line with the long axis of the tumor till I came to the sack. I opened this and found the intestines congested and darkened. On relieving the constriction, the tympanitis was so great that much force was necessary to prevent more

of the intestines from coming out. Though his thighs were elevated on a pillow, I was unable to reduce the hernia till a tall man placed the patient's flexed knees over his shoulder and inverted him, when they went back in classic style. In stitching the peritoneum I endeavored to pucker it somewhat after the manner of Mac Ewan. As the patient had vomited much before the anæsthetic and the tension was so great, I feared to leave the wound open when the patient would be five miles from me, so I put in the bottom of the wound five cords of coarse catgut and sutured it till I was below the external ring. Below this I left it open, dusted with iodoform, arranged the pads to support the borders of the incision and put on a special bandage. No hand had touched the exposed tissues but my own which I believed to be aseptic, but I was very anxious in regard to the excessive tympanitis and vomiting which I feared might cause a return of the hernia. The operation was at 3 p. m. The next day, 1 p. m., temperature was $99\frac{1}{2}$, pulse 120, tense, hard and wiry. Tympanitis was excessive, abdomen so tender that the slightest percussion was unbearable and most tender in the left hypogastric region. Vomiting continued. It required morphine, one-sixth of a grain every two hours, for him to endure the pain. Second day, temperature 99, pulse 116, softer, less tympanitis and tenderness and tongue looked better. Third day, temperature $98\frac{1}{2}$, pulse 78, soft and compressible, much less tympanitis and tenderness. Patient had passed air per rectum. Wound had discharged a small amount of serous matter which afterward became purulent. I removed the stitches and catgut gradually. Ninth day bowels moved spontaneously and wound was doing nicely. From this till the end of the third week the man was kept in a horizontal position and during this time he protested that he felt as well as ever. At the end of this, as we had reached the limit of his patience and he could see no reason that a well man should be in bed in the best of the season when his family needed the benefit of his wages, and as the wound was now healed, I allowed him to sit up in bed while I tested the strength of

the abdominal wall. There seemed to be but little resistance to the impulse from coughing. I told him as a radical cure the operation was a failure, and advised him to put on his truss and get around, which he promptly did. I saw him one week afterwards one mile from home, which distance he had walked, and he assured me he was getting along well. He soon commenced work on a farm where he lifted as other men. After harvest he worked at his trade shoeing horses which in a blacksmith shop from their long association with man are inclined to be kickers. Six months after the operation I had him take off his truss and to my surprise found the left side nearly as strong as the right. He said that the hernia never had returned and he felt as strong on that side as the other.

Chemical Work of the State Board of Health.*

Adulteration of Food and Drugs.—On July 1, 1891, the entire chemical work of the Board was placed in the hand of one of the analysts as director of the State laboratory, and he was authorized to employ an assistant and a collector capable of rendering assistance in the laboratory work. During the six months, ending December 31, 1891, 1,407 samples of foods and drugs were collected and examined, and during the year 1892, 2,991 samples were examined in addition to a large amount of other chemical work done, including the analysis of eighty-one samples of water.

Of the 2,991 samples examined during 1892, 2,299 consisted of drugs and officinal (pharmacopœial) preparations. These included the more important remedial agents, such as preparations of iron and iodine, tincture of nux vomica, ether and chloroform, iodide and bromide of potassium, compound spirit of ether, sweet spirit of nitre, morphine pills, etc., and also some substances less important as active remedial agents, such as the diluted acids which were selected with a view to determining the accuracy and reliability of dispensing pharmacists.

From the thirteenth annual report of the State Board of Health of New York.

Prompt notification has been sent to all those dealers whose preparations, upon examination, proved to be of inferior quality, warning them to desist from the sale of such articles, and it is believed that the result of this continued oversight on the part of the Board of the drugs sold in this State has been to effect a decided improvement in their quality during the last few years. If the percentage of inferior drugs reported still seems large, it is to be remembered that only those articles known to be frequently of inferior quality or purposely adulterated are selected for examination, and also that new articles are chosen from time to time as errors and abuses are found to be corrected by the warnings given and exposure of the same. The waters analyzed included thirty-one from the Hudson and thirty-three from the Mohawk, these analysis having been made in connection with the sanitary examination of the rivers of the State now being conducted by the Board, and seventeen waters, chiefly from wells in various localities, for local boards of health. Fifty samples of canned tomatoes were examined for artificial coloring matter, and such coloring matter was detected in several samples. Attention is called to the report of the director, which will be found in the matter appended to the report of the Board for the present year.

An inquiry into the purity of the coffees, teas and cocoas on sale at retail in this State has also been conducted, and 642 of these samples analyzed. A special report on this subject will be found elsewhere, the results therein set forth being of great interest. During the ensuing year it is proposed to conduct the chemical work of the Board on essentially the present line. New territory will be covered, and new articles selected for examination, but the general policy may well remain the same. With the means at the disposal of the Board, it is thought that a large amount of work has been accomplished, and it is believed that the results obtained have been of great present value, and will prove of lasting service.

Artificial India Rubber.—The manufacture of artificial india rubber has lately been protected by a patent. The component

parts of this composition are manilla gum, benzine, bitumen and resin oil. It is said that the product obtained from careful admixture and special treatment of these materials gives a substance which possesses all the elasticity, solidity and suppleness of the finest India rubber. It can, moreover, like the valuable product which it imitates, be vulcanized in the usual way.—*Pharmaceutical Record*.

The Acids of Fruits.—The grateful acid of the rhubarb leaf arises from the malic acid and binoxalate of potash which it contains; the acidity of the lemon, orange and other species of the genus *Citrus* is caused by the abundance of citric acid which their juice contains; that of the cherry, plum, apple, and pear, from the malic acid in their pulp; that of gooseberries and currants, black, red, and white, from a mixture of malic and tartaric acids; that of the mango from citric acid and a very fugitive essential oil; that of the tamarind from a mixture of citric, malic, and tartaric acids; the flavor of asparagus from aspartic acid, found also in the root of the marshmallow; and that of the cucumber from a peculiar poisonous ingredient called fungin, which is found in all fungi, and is the cause of the cucumber being offensive to some stomachs. It will be observed that rhubarb is the only fruit which contains binoxalate of potash in conjunction with an acid. It is this ingredient which renders this fruit so wholesome at the early commencement of the summer, and this is one of the wise provisions of nature for supplying a blood purifier at a time when it is likely to be most needed. Beet root owes its nutritious quality to about nine per cent of sugar which it contains, and its flavor to a peculiar substance containing nitrogen mixed with pectic acid. The carrot owes its fattening powers also to sugar, and its flavor to a peculiar fatty oil; the horse radish derives its flavor and blistering powers from volatile acrid oil. The Jerusalem artichoke contains fourteen and one-half per cent sugar and three per cent inulin (a variety of starch), besides gum and a peculiar substance to which its flavor is owing; and lastly, garlic and the rest of the onion family derive their peculiar odor from a yellowish, volatile acrid oil, but they are nutritious from containing nearly half their weight of gummy and glutinous substances not yet clearly defined.—*Chemistry of the World*.

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ANNOTATIONS.

Chloralamide As A Remedy for Seasickness.—The British Medical Journal has recently contained some letters from men like Graily Hewitt, Robert Barnes, and Prof. Charteris, regarding their professional experiences as to attacks of seasickness. The last named writer has a letter in the Journal for June 18, asking medical attention to a solution containing thirty grains of chloralamide, and a like amount of potassium bromide, in an ounce of menstruum; this has thus far been used with advantages, by persons who have had to make short voyages, like trips across the channel or from Fleetwood to Belfast. This combination is dubbed by the author "chlorobrom." The passenger is recommended to take a podophyllin pill for one or two nights before the date of sailing, and when on board to remain for a time, before rough water is reached, in a horizontal position with eyes shut, and to take no food on short trips. Dr. Charteris has received a letter from a medical man, who made the trip from Leith to Hamburg, wherein the correspondent states that the chlorobrom solution enabled him to stave off his old enemy—seasickness—by going to his berth early and getting to sleep, through the influence of the drugs, almost before the vessel got out into rough water. He was not seasick after he awoke and was able to go to the table every meal, although the boat pitched greatly. On his next trip he avoided taking the medicine and he was very sick. A trip from Glasgow to Shetland was rendered unusually free

from nausea and retching by means of small doses of the chlorobrom. The tossing of the steamer was violent enough to wake him up at night several times, but he experienced a few minutes of pleasurable reposeful feeling, which the rolling of the steamer seemed rather to enhance, and then he fell asleep again. A lady on the same trip, who had a like treatment, remarked spontaneously that, during her moments of wakefulness, she "enjoyed the rolling of the steamer." When the trip was at an end the patients were exceptionally free from exhaustion and weariness; some of them, in fact, reported themselves as "feeling quite vigorous and refreshed." The dose of chloralamide may be stated for an adult to be from a half-drachm upward, not exceeding 100 grains in twenty-four hours. Prof. Charteris closes his letter by saying that he has no hesitation in commending the drug to all who contemplate and who dread short and rough sea voyages. Of longer, transatlantic excursions he has not yet received details that will justify any sanguine expression. The reports thus far obtained warrant him in affirming that:

1. "This solution is absolutely safe and harmless, and that it produces a refreshing sleep without any baneful after effects.

2. "When judiciously administered it prevents, and in all cases alleviates seasickness." The effect of the drug may be expected to begin in from thirty to ninety minutes after dosage; and the duration of sleep thus induced will be from five to eight hours. The quality of sleep is said to be refreshing, natural and devoid of disagreeable sequels in nearly all cases.—*Journal A. M. A.*

The Inexorable Facts of Heredity.—"I have drunk whiskey every day for thirty-five years," remarked a gentleman of sixty, rather proudly, "and I don't see but I have as good a constitution as the average man of my age; I never was drunk in my life." He was telling the truth; but to learn the whole truth you would have to study his children. The oldest, a young lady, had perfect health; the second, a young man, was of a remarkably nervous and excitable temperament, as different from his phlegmatic father as possible; the third, a young lady of seventeen, was epileptic and always has very poor health. Did the father's whiskey-drinking have anything to do with these facts? The instance may be duplicated in almost every community. Think over the families of your acquaintance in which the father has long been a moderate drinker, and observe the facts as to the health of

the children. The superintendent of a hospital for children at Berne, Switzerland, has found by careful observation, that only 45 per cent of those whose parents used intoxicating liquors habitually had good constitutions, while 82 per cent of the children of temperate parents had sound bodies. Of the children of inebriates, only six per cent were healthy. Can any man "drink and take the consequences," or must his children take the consequences?—*The Quarterly Journal of Inebriety*.

A Simple Water Test.—Into a ground glass stoppered, perfectly clean bottle put five ounces of the water to be tested. To the water add ten grains of pure, granulated, white sugar. Cork tight and set in a window exposed freely to light but not to direct rays of the sun. Do not disturb the bottle, and keep the temperature as near 70° F. as possible. If the water contains organic matter, within forty-eight hours an abundance of white specks will be seen floating about, and the more organic matter the more specks. In a week or ten days, if this water is very bad, the odor of rancid butter will be noticed on removing the stopper. The little specks will settle to the bottom, where they appear as white flocculent masses. Such water should not be used for potable purposes.—*Bulletin Iowa Board of Health*.

To Prevent Cocaine Intoxication.—Parker has discovered that the unpleasant or even poisonous symptoms which occasionally follow the local application of cocaine in the nasal and buccal cavities may be entirely prevented by combining the drug with resorcin. This combination is also of advantage in utilizing the antiseptic, astringent and hæmostatic properties of the latter drug.—*British Medical Journal*.

To Remove Odor of Iodoform from the Hands.—Dr. W. Washburn, of New York, writes to the Medical Summary: Ether and chloroform are both solvents of iodoform, and if the hands are washed with just a trifle, after washing with soap and water, the odor will be missing. The hands have a peculiarly clean feeling after using chloroform, dry instantly, and require no further washing, being in a thoroughly aseptic condition. As nearly every physician carries chloroform or ether in his satchel, and as turpentine would be an additional burden, there is this also in favor of these drugs; they are always at hand.—*Western Medical Reporter*.

Changes in the Blood in Rheumatic Fever.—Archibald E. Garrod, A.M., M.D., F.R.C.P., Lond., has embodied his several years of research in the condition of the blood in rheumatic fever in a neat brochure. The doctor clearly shows that in the course of an acute attack of rheumatic fever, the red blood corpuscles are frequently reduced from 5,000,000 per cu. mm. to 4,000,000 or even less in the course of from four days to a week. Coincidentally with this great fall in the corpuscles is the fall in the per cent in hæmoglobin the remaining ones contain, and the frequent appearance of uro-hæmetopophyrin in the urine. The great clinical value of these observations lies in the indication for the use of iron as soon as the temperature has been brought down by salicylates and alkalies.—*Pacific Medical Journal*.

The Medical Services at the World's Fair.—The medical and surgical service of the World's Fair is under the general direction of Dr. John E. Owens, who is assisted by Drs. Hillmantel, Allport and Gentles, and by Miss M. R. Brown. There is an Emergency Hospital on the grounds with thirty-nine beds, divided into four wards, of which one is obstetrical. There are a number of sub-stations with physicians and nurses attached. The emergency service is provided with four ambulances, fifteen ambulance men and five drivers; and there are one hundred and fifty police and ambulance boxes at which calls can be made. The service was begun August, 1891, and it has so far administered mainly to the wants of employees. Up to May 18, 1893, there had been treated three thousand, six hundred and thirty-one surgical, and four thousand and sixty-eight medical cases. Thirty deaths have occurred on the grounds. The arrangements and management of this department have reflected great credit on those in charge.—*Medical Record*.

Hypnotic Action of Trional.—Dr. Brie of Bonn, in a recent article in the *Neurologisches Centralblatt*, reports very satisfactory results from the use of trional in several psychopathic conditions accompanied by insomnia. In melancholic and hypochondriacal depression says the writer: "Trional always insured a sleep of seven to nine hours' duration usually acting promptly in about half an hour without disagreeable effects, while the patients experienced no disturbances whatever on the following day." In these cases it was found better to commence with 2 grammes (30 grains) reducing slowly to 1 gramme (15 grains). Dr. Brie found trional

of special value in the insomnia of hysteria and neurasthenia, in cases which had long remained obstinate to treatment by other remedies. In cases of marked restlessness and maniacal excitement, including paralytic mania, excellent results were obtained in ninety per cent of the cases under treatment. In hallucinatory dementia and paranoia, trional always gave satisfactory sleep. Single doses did not exceed 3 grammes (45 grains) and good results were often obtained from 1 gramme (15 grains). The average dose is 2 grammes (30 grains).

Woolsey (G.) on Iodoform Injection in Local Tuberculosis.—The following class of cases are applicable to this treatment and in them it has been tried with more or less success.

1. Tubercular abscesses from a focus in bone or soft parts.
2. Tubercular joint disease, with or without abscess.
3. Tubercular fistulæ.
4. Tubercular epididymitis and tuberculosis of the bladder.
5. Tubercular lymphadenitis.
6. Tubercular empyema, and even tuberculosis of the lung.

In general there are two views as to the mode of action of iodoform on the tubercular process: the one, that it acts directly or specifically; the other view supposes an indirect action. This latter view has been maintained by König, who explains the action as a general antiseptic one, and especially as a drying or desiccating action of the iodoform powder. This drying action favors the primary union of a wound, and opposes a large secretion from the wound surfaces, which secretion would favor the reinfection over the wound surface from the spots where the process had not been entirely removed.

This explanation may suffice for cases which we treat as open wounds, but fail to explain cases of joint disease or abscess which we merely inject, with or without drainage. Here we must suppose a direct action of the drug on the tubercular process, and in support of this view we have the positive evidence of microscopical examinations. Marchand has observed that the production of giant cells and other elements characteristic of the molecular process ceased under the influence of iodoform. This allowed healthy granulation to take the place of tubercular granulation.

The observation of Burns and Nauwerck are the most convincing. They reported on the examination of the wall of tubercular abscesses without treatment by iodoform, and after varying peri-

ods of such treatment. Eight cases were thus accurately examined. Four layers were distinguished in the abscess wall, of which the inner two were only tubercular, and alone or mostly contained the bacilli. (The layers are an inner, fatty or necrotic, and an outer tubercular granulation layer.) As the effect of the iodoform injections it was found that, first, the tubercle bacilli constantly disappear. Further, the growth of cells of the tubercles becomes more sparing and then stops altogether, and an exudation, rich in cells, penetrates and loosens the tubercular tissue and results in its disappearance. Healthy granulation tissue forms in its place or beneath it, and displaces it. After the disappearance of tubercular tissue the granulation tissue becomes less vascular, exudation ceases, the contents are reabsorbed, and the wall becomes cicatricial tissue and contracts. The cause of the above-named changes is the killing of the tubercle bacilli; and this is due not to a caustic or inflammatory destruction, but rather to a specific anti-tubercle bacillary action of iodoform. There are several methods employed in the use of iodoform as an injection. Ether was the first substance, used as a solvent with or without alcohol, which solution varied from five to twenty per cent in strength, five per cent being the strength generally used. With the exception of French surgeons ether solutions have been abandoned in favor of sterilized, freshly prepared emulsions in glycerin, glycerin with water or alcohol (p. e.), olive oil or mucilage, in strength varying from five to twenty per cent, and in amounts of 5 c.c. to 100 c.c. of a ten per cent strength. Length of time consumed before complete cure is established requires, sometimes, four to five months. The cases, with two exceptions, were treated in Bellevue Hospital.

There were nineteen cases in all:

Class I. Abscesses—Three cases. Result—Cured, 2; improved, 1.

Class II. Joint—Six cases. Cured, 2; improved, 4.

Class III. Fistula—Seven cases. Cured, 5; improved, 2.

Class IV. Epididymitis and bladder—Three cases. Cured, 3.

Failures or partial failures have been generally due to the fact that either the treatment was not carried out thoroughly or that the patient insisted on leaving before complete cure, in many cases being satisfied with the improvement.—*N. Y. Med. Journal.*

Do the Sick Ever Sneeze?—Do those who are seriously ill ever sneeze? This is a point alluded to by Mr. Jonathan Hutchinson in the January number of his Archives. He does not recollect, himself, to have seen any but fairly healthy persons sneeze. He puts the question with especial reference to the widely-spread popular superstition that sneezing is a sign of health and good luck. It is possible, he thinks, that this may have been its origin in the fact that it is for the most part an act restricted to those in fair health. Tyler, in his "Primitive Culture," gives interesting facts as to the prevalence of this creed and as to certain customs associated with it, and traces it in part to doctrines of animism; but Mr. Hutchinson thinks the suggestion he has given may also have some value.—*The Cincinnati Lancet-Clinic*.

Hasterlik o Experiments with the Common Bacillus.—Hasterlik reported the results of six experiments which were performed on four persons in Stricker's Pathological Institute with their own consent. The first was conducted on himself, where half a drop of a pure culture of cholera bacillus was swallowed without any apparent result; later a full drop was taken without any apparent result; later a full drop was taken with no further disturbance either in general health or the alimentary tract. The stools were normal, of a healthy consistence and containing no bacilli. In the second individual the results were similar. In the third person diarrhœaic symptoms were observed, and showed after thirty-six hours a slight elevation of temperature with a few bacilli in the normal stools. The next person took $1\frac{1}{2}$ c.cm. of fresh pure culture of the comma bacillus without a single bad symptom appearing.

In order to verify the assumption of Koch that the acid in the stomach destroys the activity of the bacillus, Hasterlik prepared a three per cent solution of soda, with which he neutralized the gastric acids. On repeating the experiment again under these conditions no more disturbance was observed in the individual, and only a few comma bacilli were found in the fæces.

Prof. Drasche said that he quite concurred in the experiments recorded which were only in keeping with other cholera researches. In the last cholera epidemic we have the testimony of many indisputable authors who have carefully examined the fæces and other secretion of patients who have died of cholera, and have failed to find any bacilli in the fæces or elsewhere.—*Rep. in Eug. Med. Press*.

The Price of Drugs in Europe and America.—The Union and Danish Chemists has had prescriptions dispensed at some of the principal drug stores of foreign countries, in order to compare the prices paid for drugs abroad with those current in Denmark. From their inquiry it appears that Denmark is the place where drugs are cheapest. If the Danish rate of prices be taken as 1,000, we get the following scale:

Norway	116	Switzerland	149
Austria	117	Portugal	163
Hungary	125	Russia	197
Sweden	126	Italy	242
Belgium	141	France	247
Germany	145	England	259
Holland	147	United States	350

New York is the city where drugs are most expensive, for what can be got for twenty-five cents in Copenhagen costs about seventy-five cents in New York.—*The Med. Age.*

Contributions to the Bacteriological Study of Carbonic Acid Waters.—*Revista Internazionale d'Igiene*, March 1892. Dr. A. Montefusco has experimentally investigated the different carbonic acid waters manufactured at Naples, Italy, such as those of Saint-Moritz, Saint-Galmier, Apollinaris, Seltz, etc., with the object of finding out what is the action of carbonic acid gas on the pathogenic microbes. He found that it exerts no action whatever on the micro-organism of anthrax, cholera, not that of typhus fever, although it is destructive of the saprophytic bacteria of drinking water. The author mentions the experiments of Leona, made at the municipal laboratory of Munich, and also those of Hochestetter, Meade-Bolton, Fazio, Seala, and Alesti. The micrococcus candicans (Flugge) is the only micro-organism to be found sometimes in artificial Seltz water. If it is detected however, in a sample of this water, it does not propagate itself. For instance, Dr. Montefusco found that a sample of Seltz water which contained ten Flugge's micro-organisms per cubic centimetre, at the end of twenty days had only four or five, and in another sample they had completely disappeared. Consequently, he concludes that carbonic acid waters have a certain and destructive action on microbes; hence their hygienic property.—*International Medical Magazine.*

The Treatment of Sore Nipples by Thiol.—One of our readers who has adopted the use of thiol in his practice, writes that he employs the remedy for sore nipples thus:

Thiol; 1 dr., rubbed up with $1\frac{1}{4}$ drs. glycerine to which is then added in turn $1\frac{1}{2}$ drs. lanoline and 2 ozs. olive oil. Applied to the nipples, this ointment relieves the pain at once, and it produces prompt healing of the fissures; it can be readily washed off with a soft sponge. As thiol is perfectly odorless, and also free from all toxic properties, it is particularly well suited for the indicated use, and certainly far superior to the ill-smelling ichthyol.

Local Use of Strong Hydrogen Peroxide Solutions in Diphtheria.—Dr. F. H. Williams, (*Boston Medical and Surgical Journal*), says: The peroxide of hydrogen has the unique and necessary quality of disintegrating the membrane and thus rendering the bacillus accessible. As it only attacks dead organic matter, the healthy tissues are not lacerated as in the case when mechanical means are used to remove the membrane. The acid peroxide of hydrogen solutions are an effective germicide against the bacillus of diphtheria, and are not toxic to the patient. The syringe (of glass, and an invention of the author) is simple in construction, and is inexpensive; it can be kept perfectly clean and is not attacked by solutions which quickly corrode metals. With it one can easily reach all parts of the throat which are to be seen without a mirror.

After standing three days, the strength of the solution diminishes.—*The American Lancet*.

Summer Diarrhoea.—For children one year of age:

R	Zinci sulphocarbolat,	Gr. V.
	Bismuth subnitr.,	Gr. XV.
	Pepsin saccharvt,	Drss.
	Mt. in chart.	No. XV. div.

Sig.—One powder every hour until stools become inodorous; then every two to four hours.—*Waugh, Times and Register*.

Infection by Circumcision.—Dr. F. P. Kinnicutt reports the cases of ten Jewish boys who were circumcised by a man who died afterward of consumption. The preputial wounds were infected by the operator's saliva, showing symptoms ten days later. Seven of these poor victims died, and three survived with tuberculous adenitis.—*Medical Record*.

Primary Sciatica, With Special Reference to Treatment by Acupuncture.—Dr. Valentine Gibson (Glasgow) publishes in the *Lancet* (1893, No. 3693), an analysis of 1,000 consecutive cases of primary sciatics observed at the Devonshire Hospital, Buxton, with the following results:

I find that 88.4 or 88.4 per cent, occurred in males; and 11.6, or 11.6 per cent, in females—A proportion of nearly 8 to 1. With regard to the side affected, 44.3, or 44.3 per cent, had the affection on the right side; 78.3, or 78.3 per cent, on the left side; and 7.4, or 7.4 per cent, had both sides affected. As to the age when the affection first commenced, 1.4, or 1.4 per cent, contracted the disease between the ages of fifteen and twenty; 15.9, or 15.9 per cent, between the ages of twenty-one and thirty; 31.0, or 31 per cent, between the ages of thirty-one and forty; 24.8, or 24.8 per cent, between the ages of forty-one and fifty; 18.7, or 18.7 per cent, between the ages of fifty-one and sixty; 7.1, or 7.1 per cent, between the ages of sixty-one and seventy; and 1.1, or 1.1 per cent, between the ages of seventy-one and eighty. In 13.2, or 13.2 per cent, there was accompanying lumbago; and 12.3, or 12.3 per cent, followed the occupation of mining. The percentage of cases with lumbago is probably too low. These statistics show that 55 per cent, or more than half the cases occurred during the prime of life. This fact shows a marked contrast to rheumatoid arthritis of the hip-joint, which so often gives rise to secondary sciatica, as is illustrated by the following statistics: Of 35 consecutive cases treated at the Devonshire Hospital, Buxton, 40 per cent occurred between the ages of sixty-one and 70, 22.8 per cent between the ages of fifty-one and sixty, 20 per cent between the ages of forty-one and fifty, 8.5 per cent between the ages of thirty-one and forty, and 8.5 per cent between the ages of twenty-one and thirty. Of these, 96 per cent were males and 4 per cent females. From the age, large percentage of males, and absence of constitutional disturbance in rheumatoid arthritis of the hip-joint, it would seem that this disease is distinct from polyarticular rheumatoid arthritis, the majority of cases in this affection occurring at an earlier age, being more frequent in the female sex, and accompanied by very marked constitutional disturbance. The result, on being discharged from the hospital, of 100 consecutive cases of sciatics treated by acupuncture is as follows: 56 per cent were cured, 32 per cent were much improved, 10 per cent were improved, and in 2 per cent there was no improvement. These results, I consider very satisfactory, considering the chronic nature and the severity of the majority of the cases. All these were treated by acupuncture, and they all used the Buxton thermal water."

The acupuncture referred to is the acupuncture of the nerve itself, which the patient can always tell by pain shooting down the leg. The needles should be withdrawn immediately. The nerve should be pierced about five times over the parts where there is pain on pressure. The external popliteal and musculo-cutaneous nerves may also be pierced, if painful.—*The A. J. N. S.*

Of Interest to those Contemplating Visiting the Great Columbian Exposition at Chicago, Ill.—Those of our readers who contemplate visiting the World's Fair should arrange for their hotel accommodations in advance of their going, thereby saving a great expense and annoyance in looking up a suitable and reasonable hotel after their arrival. We decided to, and have made inquiry concerning the various hotels at Chicago as to their price, rooms and location, and after careful investigation, have decided to recommend the hotel, "The Syracuse," situated at Windsor park, at the foot of 75th street, it being near the fair grounds, partially surrounded by a beautiful grove, fronting on the shore of Lake Michigan, which contributes its cool evening breezes to refresh the tired frame after a day's jaunt, and to make sleeping easy and delightful. "The New York State Educational Journal" endorses the hotel, "The Syracuse," as follows:

Some time ago we promised our readers to visit Chicago and examine the hotel accommodations offered with reference to recommending advance arrangements for the summer. Immediately on our return from Egypt we went to Chicago and looked over the ground carefully. We have decided to recommend "The Syracuse," a building erected by men we know and in whom we have confidence, and which seems to combine more advantages than any other.

These requisites seem to us indispensable:

(1) The hotel should be on the lake. Chicago is a hot place in summer, and only the lake breezes will make sleeping at all comfortable.

(2) It should be reached from the Exposition grounds *by boat*. How annoying it is to crowd into horse cars and trains on a hot afternoon all our readers know. At Paris nine-tenths of the visitors were carried by the little river-boats.

(3) The drainage should be perfect. *This will be the great danger at Chicago*. Hundreds of cheap buildings have been erected with cheap plumbing and cess-pool reservoir. If typhoid fever does not result, it won't be the fault of the builders.

(4) There should be the quiet and the privacy of home. This is the objection to the turning of school-houses into dormitories. Sight-seeing is hard work, and when the day is done the visitor should have a room of his own to wash in and to rest in.

(5) The price should be reasonable. We are satisfied that the lowest rate at which it will be possible to obtain rooms that are at all suitable is one dollar a day.

"The Syracuse" combines all these advantages:

(1) It is on the lake, fronting the shore, 300 feet from the water, where there are pavilions for bathing, boats, fishing, etc. The few rooms fronting the lake will be as desirable as one could wish, and all will be comfortable.

(2) The steamboat pier is directly in front of the hotel. Besides the hotel itself is only a mile from the grounds, which can thus be reached by easy walking. This will be a great consideration, for the electric display at night, for which a million dollars has been appropriated, will be one of the important features of the fair. It is also two blocks from the electric cars, and three blocks from the station of the Illinois Central, and those wishing to go to the city will be much surer of a seat than from the fair grounds.

(3) The rooms are all lathed and plastered, and well furnished, with woven spring mattresses. When you lock the door you are in your own castle, as much as at home. This is different enough from tents and dormitories.

The dining room is on the European plan and the rates will be reasonable.

TERMS.

The hotel accommodates only 400 persons, and the rooms we selected and engaged as the best will accommodate only 200. Early application should therefore be made. If you know just when you will go, we can assign you a particular room, and give you a diagram of the hotel showing just where the room is located. If you are not ready to fix on a specific date, we can give you a contract to furnish you as good rooms as are vacant at the time you present yourself. It is better, however, to engage for a fixed date.

For diagram of rooms, prices and how to reach the hotel quickly, address, WM. M. KNAPP, Windsor Park, Chicago, Ill., care hotel, "The Syracuse."

Salipyrin for Rheumatism. — A. L. Trachtenberg, after a trial of salipyrin in eleven cases of rheumatism in the joints, arrives at the conclusion that it is an exceptionally reliable and energetic remedy for the above disease. — *Therap. Monatshefte*, 1892, p. 674, from *Der Arzt.*, 1892, No. 18.

REVIEWS AND BOOK NOTICES.

A Hand-Book of Local Therapeutics, by Allen, Harte, Harlan and Van Harlingen. Edited by Harrison Allen, M. D. Octavo, 500 pages, price \$4.00. P. Blakiston, Son & Co., Philadelphia.

The need for a book of this character has long been apparent for there has been no text available in which the *local action of drugs* was not subordinated to their general actions, while the average text-book omits altogether, mention of many agents that in the hands of a specialist become valuable aids to cure.

Diseases which require chiefly local treatment are those of the respiratory passages, eye, ear and skin, together with certain general surgical affections, including diseases of women. It is, therefore, to the great advantage of the work that each remedy has been thoroughly set forth by different authors who have had large practical experience in these various branches.

Each remedy has been taken up in alphabetical order and after a description of its pharmaceutical properties, is considered in reference to its physiological effect and value in local treatment.

The demands for thorough revision of local medicaments made by the advance of theories of asepsis, have been fully considered, and a succinct account has been presented of the source and properties of the very numerous new agents which affect tissues locally.

Some drugs have been excluded which have been highly praised; on the other hand great care has been taken not to indorse imperfectly attested novelties.

This hand-book embodies the results obtained by experienced teachers and will prove a very valuable work to the general practitioner. Two carefully made indexes make it a book of ready reference.

Diagnosis and Treatment of Diseases of the Ear, Nose and Throat.—By eminent American, British, Canadian, and Spanish authors. Edited by Charles H. Burnett, A. M., M. D., Emeritus Professor in the Philadelphia Polyclinic and College Graduates in Medicine; Clinical Professor of Otology in the Woman's Medical College of Pennsylvania; Aurist to the Presbyterian Hospital, Philadelphia. Illustrated. Complete

in two imperial octavo volumes of about 800 pages each. Price per volume: cloth, \$6.00; full sheep, \$7.00; half russia, \$7.50. J. B. Lippincott Company, publishers, Philadelphia, Pa., U. S. A.

The editors and publishers, impressed with the high scientific and practical value of the results obtained by eminent specialists in diseases of the nose, throat and ear, have determined to present this wealth of special medical knowledge in a form available for the profession at large.

The increased and increasing importance of the successful results obtained by eminent specialists, in their treatment of diseases of the nose, throat and ear, has created a demand among the profession at large for a thorough, practical and comprehensive treatise in diseases of these organs. At the same time, the intimate anatomical and pathological relation existing between the ear and the nose and throat renders it highly advantageous, both to the specialist and the general practitioner, not only to have all that is settled as best in the learning on these kindred subjects, but also to have it contained within the limits of the same work, rather than scattered throughout single treatises devoted to the diseases of each organ separately.

To fulfil these conditions, therefore, it was the purpose of the editor to embody, in one system, all the learning of the medical world in these special departments,—thus making it a complete, exhaustive, and authoritative treatise on diseases of the nose, throat and ear. The work, while scientific, is eminently practical,—special attention being given to diagnosis and treatment.

The writers of the different chapters have been chosen, by the editor, from among specialists of acknowledged skill in both Europe and America. and are men whose natural capacity, special training, and successful experience have eminently qualified them to write the particular chapters assigned to them. The completed work, therefore, is entirely original, and an embodiment of the latest and best theoretical and practical views in these special departments of medicine.

The work is illustrated with numerous text-cuts, chromolithographs, and half-tone reproductions from photographs, both of which latter are printed on specially prepared paper and inserted as separate sheets.

The list of subjects and authors serve not only to indicate the quality, scope, arrangement, and international character of the work, but is also a guarantee of the high scientific and practical value of a work which is the joint product of such distinguished authorship.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received:

Clinical Study and Analysis of 1,000 Cases of Psoriasis. By L. D. Bulkley, M.D.

Syphilis of the Naso-Pharynx. By Louis E. Blair, A.M., M.D.

The Value of Mechanical Treatment in Old and Neglected Cases of Pott's Disease. By Henry Ling Taylor, M.D.

Surgical Dressings, Aseptic and Antiseptic. By Seward W. Williams, Ph.C., F.C.S.

Remarks on the Management of Suppuration, Complicating Tuberculous Disease of the Bones and Joints. By Henry Ling Taylor, M.D.

Osteitis Deformans (Paget). With Report of Two Cases. By Henry Ling Taylor M.D.

The Treatment of the Nasal Catarrhs. By William T. Cathell, M.D.

A Study of Two Cases of Paroxysmac Sneezing, with the Treatment. By William T. Cathell, M.D.

How to Operate for Hemorrhoids. By Charles B. Kelsey, M.D.

Limitation of the Family. By Frederick Wallace Abbott, M.D.

Treasury Department Laws and Regulations for the Maritime Quarantines of the United States.

Malpractice. By Clark Bell, Esq.

Preparation of the City of Brooklyn for the Anticipated Epidemic of Cholera in 1884 and 1885. By Joseph H. Raymond, M.D.

Multiple Neuritis: Its Etiology, Symptomatology. With Report of Cases.

Higher Preliminary Education. By Henry E. Dwight.

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The Psychoses of Epilepsy.*

JNO. BEN. STONEHOUSE, M. D.

The profession in late years has awakened to the necessity for a more general knowledge of mental diseases. Unhappily, the study of insanity has, heretofore, been confined to the asylum physicians, who, as a general rule, have shown no disposition to ask the aid of the general practitioner or to make public the results of their experience.

But the fact that no special branch of medicine can be scientifically pursued without assistance from other branches, has forced the alienist, who is unwilling to be left behind in the progress of our profession, to seek assistance from his brethren outside the asylum; and investigation in morbid psychology has received a new impetus from this co-operation. But much is yet to be accomplished, particularly in reference to the early stages of mental disease, where the experience of the general practitioner will be of incalculable value. Perhaps no variety offers a richer field for investigation in the earlier stages of the disease than the epileptic. If for no other reason, the possibility of the commission of criminal deeds by the epileptic should determine the family physician to not only gain an accurate knowledge of the phases of this neurosis, but also to search for and carefully observe its earliest mental manifestations. Nothing interferes so often with the administration of justice in criminal or probate cases as the inability of the family physician to aid in tracing the

*Read before the Medical Society of the County of Albany, April 5th, 1893.

course of mental disease. With the hope, therefore, that I shall be able to inspire the members of this Society, with increased interest in this important subject, I have prepared the following pages.

As to the number of epileptics who exhibit mental changes:

Althaus says that of 250 cases occurring in hospital and private practice, during a period of six years, 89 or 35.6 per cent. exhibited no perceptible temporary or permanent alteration in the mental condition which could be ascribed to the epilepsy; while in 161 cases or 64.4 per cent. such alteration did occur. Of the 89 cases which escaped mental deterioration 61 or 68.5 per cent. were cases of nocturnal epilepsy; while in 28 or 31.4 per cent. attacks took place in the day time. All, however, which escaped were cases of typical convulsive attacks; while in all cases of loss of consciousness without convulsion and epileptic vertigo or automatism a more or less permanent mental alteration was induced.

Echeverria says that mental failure was evident in 374 of 532 epileptics whose history he had analyzed, or in 70.3 per cent.

As to the number of insane cases where epilepsy is the cause:

Bucknill and Tuke calculate that epilepsy is the cause in about 7 per cent. of the patients admitted into asylums. The statistics of the Somerset (Eng.) County Asylum, show that, excluding readmissions, 10.7 per cent. of cases admitted were epileptic.

As to the forms of epileptic mental disease and defect:

Esquirol states that of 339 cases of epileptic insanity, 145 or 42.7 per cent. were demented, 176 or 51.6 per cent. suffered from mania which was partial, sub-acute or violent, 8 or 2.3 per cent. were idiots and all but 60 manifested loss of memory.

Intemperance, alone, or combined with one or more factors, as a cause of epilepsy, ranks as one of the most pernicious influences in the production of epileptic insanity. It is especially apt to superinduce mental changes when the habit is acquired after the origin of the epilepsy or when it is but another manifestation of a neurotic degeneration.

Injuries to the head, especially when combined with intemperance act no less powerfully. Heredity is also an important factor. Mental defects are prone to exist in those cases in which the epilepsy originated in infancy. The frequency of the attacks, the marked recurrence of incomplete or nocturnal attacks and the combination of typical and incomplete convulsions are extremely influential in the production of insanity.

We come now to the description of the various forms of mental defects and changes which may accompany epilepsy, as its effects. I propose to speak of their symptomatology and relations to the physical convulsion; and as a matter of convenience and not as an attempt at scientific classification, I have adopted the following scheme for my guidance:

- (1) Idiocy and imbecility.
- (2) Acute (furious) mania.
- (3) Sub-acute mania.
- (4) Hallucinations and illusions.
- (5) Permanent or chronic insanity.
- (6) Dementia.
- (7) Psychical equivalents.
- (8) Pre-epileptic attacks.
- (9) Post-epileptic attacks.
- (10) Intervallary attacks.

IDIOCY AND IMBECILITY.

To quote from Spitzka, "To the subject deprived of all the higher mental power, and who is unable to acquire the simplest accomplishment, the term Idiot is applied. He who is capable of acquiring simple accomplishments but unable to exercise the reasoning power beyond the extent to which a child is capable, is designated an Imbecile. Finally, there is a large class of subjects who are defective as to judgment and in whom this defect is of similar origin to, though not as intense as that of the imbecile or idiot, who are termed Feeble minded."

Frequently occurring epileptic fits, especially of the incomplete variety, may, during the period of mental and physical

development, originate either of these conditons in proportion to the frequency of the paroxysms and the early manifestation of the epileptic neurosis.

Epilepsy occurring in infancy (prior to the 7th year) seldom fails to leave an indelible mark upon the developing intelligence and, as, a general rule, idiocy or imbecility result. The feeble-minded class are perhaps the more frequently met with. This may be explained by two facts: first, the large mortality of epileptic infants—over one-quarter of the deaths from epilepsy occurring under five years of age—the period when the profounder degrees of mental defect would be likely to occur, and when the influence of hereditary predisposition to an unstable mental and nervous constitution is more marked in the origination of epilepsy; second, in reference to the age of invasion, Echeverria says “the maximum corresponds with the period of adolescence namely from 14 to 25 years.” This is the period when considerable mental development having already taken place, feeble-mindedness and not idiocy is the usual result.

In these cases (the feeble-minded) the patient often aids in the mental enfeeblement by the acquisition of the habit of masturbation. He is incapable of education with youths of his own age, is often irritable and difficult to manage. Dr. Ireland says, “while they generally present a certain fallacious amount of intelligence, this intelligence does not appear to be much improved by training. If during the intervals between the epileptic seizures, they learn anything, a new attack is apt to erase it from the memory; they are generally wild and intractable and indeed seem to be on the boundary line between imbecility and insanity.”

ACUTE EPILEPTIC MANIA. FURIOUS MANIA.

Acute mania, as it appears in the non-epileptic insane is, or should be, so well known, that I shall attempt no definition or description of it, but confine myself to those phenomena which may be considered more or less characteristic of the epileptic form.

Incoherence of words, ideas, or acts is not always well marked, and, the less manifest it is, the more liable is the individual to commit an act of violence. This is easy of explanation, for in cases characterized by great incoherence of ideas, the transition from one insane impulse to another is so sudden and frequent that a sufficient period of time for execution is wanting, before the mind is completely absorbed by another idea and its impulse, which eradicates even all memory of its predecessor.

The patient frequently exhibits an impulsive and automatic rushing from one spot to another. He strikes or injures whoever or whatever may come in his way. Maudsley says, such a one is "to all intents and purposes, an organic machine, set in the most destructive motion; friend or foe alike perish before him; all his energy is absorbed in the convulsive paroxysm."

But, as I have said, not all cases exhibit such incoherence and excessive motility. Occasionally it appears as if there was a method in their madness, but a more careful study soon shows that this is more apparent than real—the same automatism exists although the impulsive acts may be determined by hallucinations, so frequent in epileptic insanity; but, even then, the normal inhibition of the higher intellectual faculties is in abeyance—the actions follow directly upon the morbid sensorial impression. Again the appearance of calculating premeditated action may be given to the acts of those who, probably, have no hallucinations or delusions, and yet the same automatism remains. In some of these phases, usually such as are called "psychical equivalents" or "replacing attacks" and in which the mental symptoms take the place of a convulsive seizure, the onset of the maniacal fury does not interrupt an idea or even an act—a phenomenon not uncommon in those subject to epileptic vertigo, who continue during the attack an act once begun.

In young children, even of three or four years of age, these attacks take the form of violent shrieking, desperate stubbornness or furious rage when they bite, tear, kick, and do all the destruction they can.

This furious mania, in many cases, lasts only for a few minutes while in others a longer period, even days may elapse before recovery. As a rule, a well-marked periodicity characterizes these attacks which recur at tolerably regular intervals. Similar or identical symptoms are apt to occur, in the same individual, year after year, although a change in intensity may be noticed from time to time. Even after dementia has been developed, mania is a frequent episode in its course. The most important fact, however, in reference to the symptomatology of these maniacal attacks occurring in epileptics, is that unconsciousness in a large majority of instances accompanies them, and I believe that its great importance as a factor in the medical jurisprudence of so many of the epileptic insane, will excuse me for calling special attention to it. Very great confusion exists in the minds, not only of the lawyers, but of medical men as well, as to the significance of the terms consciousness and unconsciousness.

This confusion arises from several sources. It is very generally held, by those whose experience has been principally with the phenomena of the typically complete epileptic fit, that unconscious must necessarily be accompanied by insensibility and that therefore the epileptic maniac should be unable to speak or answer or to notice what transpires around him during the seizure, and hence the prejudice against admitting that criminal epileptics have no mental perception of deeds perpetrated by them in a condition of insanity. The fallacy of this belief is quite obvious: for the same condition is not exclusive to epileptics, but is generally common to other forms of insanity.

Again the old metaphysical abstraction of consciousness as single and indivisible, prevents the acceptance of views, looking to its affection in varying degrees, although innumerable every-day experiences teach us that this may be so.

Now consciousness is extremely complex and hence divisible by the analysis of disease, and may be impaired to any degree. Moreover it is difficult to conceive a complete unconsciousness as distinct from death. In the typical epileptic

convulsion we have a profound form of unconsciousness, of which the concomitant insensibility is the most manifest factor. In epileptic vertigo, the unconsciousness is usually less in intensity and duration, while in epileptic mania, acute and sub-acute, it exhibits great variety of implication. All of these varieties, however, are as a rule of sufficient intensity to interfere with the registration of impressions sensorial or ideational; that is, to abolish memory. The performance of acts, apparently conscious, with absence of all recollection of them, after the attack, constitutes often the most evident characteristic of these mental seizures.

But in the courts and newspapers we are told that this is only a flimsy device of the medical expert to shield criminals from well deserved punishment. If the symptomatology of the epileptic insane had been studied in criminal cases alone, there would be much apparent justice in this taunt. But our legal and hypersensitive friends forget, or never knew, that in the great majority of cases, exhibiting epileptic unconsciousness, no criminal act is done and no punishment is to be avoided.

The most favorable conditions for the production of maniacal symptoms are the following: (1) when the disease (epilepsy) has been for a long time suspended, it often bursts forth with fresh intensity, both in the convulsive and in the delirious form. I have the notes of a case where epilepsy, having existed in infancy and youth, was apparently cured, but recurred in early adult life, after intemperate habits had been acquired, with incomplete nocturnal attacks and violent post epileptic seizures. (2) When the fits recur at very short intervals, and, as it were, one upon another, delirium frequently sets in, especially when the seizures are incomplete. It may be said that the typically complete convulsions are least liable to be accompanied by mental disturbances. In this latter case, it would seem, to use Hughlings Jackson's phraseology, that the nervous discharge was fully satisfied in the muscular activity.

SUB-ACUTE EPILEPTIC MANIA.

Another phase of mental disturbance of greater duration than acute furious mania, may also occur, following almost immediately after a fit or developing during an interval when it is probably a psychical equivalent. The post-epileptic form may be considered as typical. The usual stupor, marked by difficulty of co-ordinating ideas and recognizing persons or things, with failure of memory, passes, leaving more or less confusion and loss of will-power with a vague although intense sense of anxiety or dread and an impulsive irritability. During this stage of confusion the patient is often, to some extent, conscious of the vagueness of his ideas and his inability to co-ordinate them. Following this, hallucinations are sometimes developed, which are almost invariably of a painful character, and connected with the tendency to recall all the painful thoughts of the past life, which is so characteristic of epileptic insanity. When this tendency exists, the same depressive thoughts and sensations recur, in an individual, without special alteration, whenever an attack comes on. There is incoherence of words and ideas but it is less marked than in ordinary maniacal conditions and contrasting strongly with the nearly total effacement of all recollection, stands the fact that these patients talk more readily and to the point and observe more acutely than does the ordinary maniac. A state of motor automatism is usually present, characterized principally by one or both of the following: (1) A tendency to touch or point at different articles in the room, picking up articles (frequently exposing the patient to the charge of pilfering) pulling out threads, etc. (2) A tendency to wander (*mania errabunda*) the patient sometimes even traveling, by boat or cars, to places at considerable distances, and where there is nothing, at the time, to particularly attract them. They feel impelled to go and go they do. It is interesting that patients in describing the indefinite impulsive sensations which govern their thoughts and deeds, use analagous expressions, differing only with their social positions and degrees of education; they "are no longer themselves," "it drives them on," "the devil

has them," "an evil spirit commands," "an irresistible power compels," etc. In accord with the laws already referred to that the less acute the attack the less the incoherence and the less the incoherence the more marked the violence; deeds of violence are more frequent in the sub-acute than in the acute attack.

A frequent peculiarity of acts committed under this condition, as also in the acute variety, is the tendency to repetition. When an attack is made, the patient seems to gain no satisfaction from a single blow. The blows, stabs, etc., may be repeated again and again until the victim is fearfully mangled. When kleptomania is manifested, the patients pockets are likely to be filled with various articles.

Following such an attack, a comparatively normal condition of mind may develop, although the individual is unconscious of what has passed. Or, again, recovery may take place without any violence having occurred, the patient being astonished to find himself away from home, or under other peculiar and unusual circumstances. Recollection of events occurring during sub-acute mania is possibly more frequent and to a greater degree than is the case in acute epileptic mania where memory is, as a rule, completely abolished. Indeed, in sub-acute mania, the patient, sometimes retains what may be described as an outline or sketch-like recollection of the main events occurring during the attack.

I am of the opinion that attacks of post-epileptic sub-acute mania are more common after the incomplete or the nocturnal convulsions, and that when they occur during the interval, are more prolonged than if immediately connected with the fit.

HALLUCINATIONS.

In epileptic insanity they are usually of a terrible nature. Flames flash before the eyes; figures of men and animals are seen, generally in red but occasionally in purple or other colors; these may be dwarfs or giants or of otherwise distorted and grotesque shapes. In one class of hallucinations of hearing the sounds are of an indefinite character, but in the majority are calculated to inspire the patient with intense

fear or awe. These have been variously described as roaring, thundering or sepulchral, but more often as piercing. Again, voices are heard with more or less distinctness, threatening, or warning, or expressive of the direst suffering, or they may be imperative, forcing the patient to deeds, violent, disgusting or destructive. Sulphurous smells are sometimes experienced and are frequently explained by the near proximity of His Satanic Majesty's Dominions, or the patient may be oppressed with odors of dead animals or excrement. Hallucinations of taste are rarely noted. They are also of a disagreeable character.

The observer is impressed with the striking analogy existing between these sensorial impressions as parts of an insane condition, but not always connected with the physical convulsion, and the mental auræ of the epileptic fit described in all our text-books but which do not necessarily indicate an insanity. Existing alone but more generally coupled with, and frequently the outgrowth of hallucinations, are noticed.

ILLUSIONS.

Persons, animals, trees, houses, etc., are invested with unreal characters. They assume mocking or menacing attitudes and may thus become the excitants to violence. I have seen an epileptic suddenly seize and wrestle, as if for life, with an iron gate post, calling, in the most urgent tones, for help to strangle "this terrible monster." If an individual, instead of the iron post, had happened to form the basis for this illusion, homicide would certainly have been committed before the patient was secured.

In a number of epileptics,

PERMANENT MENTAL AND MORAL CHANGE—CHRONIC EPILEPTIC INSANITY

is noticeable. Indeed, I think it extremely doubtful if a person can be found, who has suffered from epilepsy for any considerable period, without manifesting evidences of mental disturbance more or less marked. It may be that there is only a slight loss of memory, with irritability; or a profound dementia, or any of the forms or combinations

which exist between these extreme conditions may be found. However slight they may be, mental change or defect in some of their degrees will be found by the careful observer. Until dementia occurs, as it surely does when death or recovery does not terminate the epilepsy during a comparatively early stage, the type of the symptoms is, as in the physical manifestations of the disease, that of loss of the controlling or inhibitory power of the higher nervous centres. And it is worthy of note, that the more rapidly control is removed, the more activity is there of the centres uncontrolled. Thus, in the epileptic maniac (the most furious of all maniacs), the control has been removed very suddenly. Mental irritability is often the most noticeable early symptom. The patient seems to be continually seeking cause for anger. A look, word, or even a gesture is made the excuse for an explosion of wrath which may as suddenly pass away, and be forgotten, or form the basis for a permanent delusion. Combined with, and partly as a development of this irritability, is an overbearing disposition and behavior. A moral change is soon apparent—A single epileptic seizure, especially in the case of a child, has been known to change entirely the moral character; “effacing,” as Maudsley says, “the moral sense, as it sometimes effaces the memory:” or these conditions (changeability of feeling, temper and character) may even occur before any physical manifestations of the epileptic neurosis. The moral change is evidenced by a long train of symptoms. The patient is obstinate and avoids society. He becomes a confirmed liar, a masturbator, a drunkard, and finally a criminal. In reference to the habit of masturbation, it may be well to note, that according to the experience of most observers, it is a very frequent early accompaniment of epilepsy instead of its original cause, as has been claimed. It sometimes exists before the fits and is then, usually, simply one indication of the neurosis, as epilepsy is another. Its indulgence certainly aggravates the physical disease, and secondarily, the mental and moral changes. In strong contrast with these moral perversions, we often find, running through the

mental history of these unfortunates, a strong religious or devotional feeling manifesting itself, it may be in simple piety or in decided religious delusions. Hallucinations make their appearance and may be expansive or depressive, and under their influence homicide or suicide is often committed. A peculiarity sometimes conspicuous in epileptic insanity is the echo-sign—that is, the repetition by the patient of the same phrase or word, or words addressed to him. The following extract from a letter given by Echeverria, will illustrate: “I hope that it will awaken all your lukewarm profession and stir you up, and it will awake your lukewarm and awake you out of your sleep and show you your lost and ruined condition and make you repent and believe on the Lord Jesus Christ for if you do not you do not you will be damned.” Another extract, from a letter written by a patient at the Utica Asylum, gives a still better example: “So tell pa the quick he comes to bee right along so come as quick as you can to mor for they are redy as quick as yo get here So bee along as quick as you can rite along for i am redy. Write along quick the better for i am redy to come home as quick as yo get here So bee rite along the are redy and they are all gone So bee rite along as quick as yo can So be yo here as quick as the better get home rite along that is so.” While I have been unable to describe all of the symptoms, and while all of those given are not necessarily present, the above is a fair picture of the chronic mental perturbation which forms a background for the episodic attacks which are elsewhere described. It may be well, in conclusion, to recall some of the concomitant physical phenomena—the bloated and livid appearance of the face, the injection of the conjunctivæ, the thick, white matter in the angles of the eyelids, and the lost, heavy look. These, with the slowness of respiration, with loss of its normal relation to the pulse rate, complete the picture.

DEMENTIA

may be defined as a condition in which the patient has lost to greater or less degree the power of reasoning.

It is an acquired, and nearly always a secondary condition in contradistinction to idiocy and imbecility, which are original defects. I am particular in thus pointing out the differentiation of these terms as they are frequently used synonymously, not only by the laity, but, by professional men, and even sometimes in our medical journals and colleges as well. Epileptic dementia seems to be directly dependent upon the frequency of the convulsive attacks rather than upon their severity. It is especially frequent in those cases complicated by paralysis. It is seldom, in my experience, as profound a degeneration as occurs in the non-epileptic insane, but is almost without exception hopeless as to recovery.

PSYCHICAL EQUIVALENTS.

Perhaps the most valuable addition to the medical jurisprudence of insanity made in recent years, has been the recognition of the fact that certain mental states may replace the physical epileptic convulsion. These may consist of attacks of mania, with or without purposeless automatism, in the acute or sub-acute form. Falret states, "whenever we meet isolated acts of violence, outrages to person, homicide, suicide, arson, when nothing seems to have instigated them and when upon attentive examination and thorough inquiry we find a loss of memory, after the perpetration of the act, with a periodicity in the recurrence of the same act, and a brief duration we may diagnose larvated epilepsy." These paroxysms, of mental convulsion, may alternate with typical epileptic attacks or after a time replace them. It is an extremely doubtful question, if an attack of mental disturbance ever entirely replaces a physical convulsion, that is, whether all the symptoms of a fit are ever entirely absent during its psychical equivalent. Hughlings Jackson does not believe so. He says that there is at the outset a transitory and unobserved fit. His remarks would seem to mean that the so-called psychical equivalents are always instances of post-epileptic insanity. I am not prepared however, to agree with him to this extent. I have certainly seen cases in which none of the symptom of the convulsive paroxysm were present except one or more of the premoni-

tions, such, for instance, as the aura usual in an individual case. I have in mind a patient who was discharged from the employ of a manufacturer on account of attacks of furious running about the work-room with piercing screams and blasphemy. His physical convulsions were generally nocturnal, but those which occurred during the day time were of the complete variety and always preceded by the characteristic cadaveric blanching of the face.

A fellow workman tells me that on one occasion, at least, when he had the opportunity, he noticed the same phenomenon occurring immediately before the mental attack. Of course it is seldom that an opportunity is given to observe these pre-paroxysmal states, hence it is very necessary, especially to the medical jurist to recognize the possibility of such attacks occurring without noticeable warnings.

Another characteristic of these attacks which cannot be too strongly impressed upon medical men is the complete forgetfulness of all that has passed during the period of mental alienation.

That paroxysms of insanity so occurring and presenting such features are allied to epilepsy is conceded on the following grounds:

1. They occur in neurotic subjects.
2. They are associated with epilepsy in one way or another.
3. They may be relieved by anti-epileptic treatment.
4. They may be preceded by aural or even succeeded by sleep or stupor.
5. They are frequently associated with intemperance and injuries to the head.

PRE-EPILEPTIC CONDITIONS

are those which precede, immediately, the first stage of the fit, and may have a duration varying from a few minutes to several hours or even days. In many cases simple querulousness and discontent are the only precursors of a fit. In others, there are, added, appreciable changes of temper. Thus the patient is sad and peevish, gloomy and morose or spiteful and suspicious, or he is gay and loquacious with unusual confidence

in his mental and physical strength, or there is a lack of mental energy with confusion. These comparatively mild symptoms, sometimes complicated by vivid but temporary hallucinations, frequently of a religious or salacious tinge, are often the only mental precursors of a convulsion. Instances are on record, however, where after a very similar train of symptoms furious mania has developed, terminating in the explosion of the convulsion. Attacks of mania or sub-acute mania are said to have preceded the fit, without any of the emotional changes just mentioned, but I am inclined to look upon these as instances of psychical equivalents occurring in the interval.

POST-EPILEPTIC CONDITIONS

are such as follow, more or less immediately, the convulsion (the post epileptic sleep, or rather stupor, being included) or the psychical equivalent of such paroxysm. It should be remembered, however, that in some cases the attacks of furious mania may follow directly upon the clonic stage, the stage of stupor being absent. The most striking phases of post-epileptic insanity are the acute and sub-acute forms of mania. There are, however, a variety of mental symptoms and combinations thereof, which from their relative connection with the fit may be termed post-epileptic.

The characteristic stupor, immediately succeeding the clonic stage of a convulsion, may be followed by simple delirium, lasting from a few minutes to several hours. It is extremely variable as to character and degree, and occasionally it is so slight as to be overlooked, if careful search is not made.

It may be dreamy, incoherent, shallow and foolish, or plausible and apparently coherent, pleasant, or painful or these varieties may alternate. In other cases, especially after the status epilepticus, the stupor continues, even for several days, or may complicate, or alternate with, melancholia and impulses to suicide or self-mutilation. Echeverria relates the case of a girl, who after a series of fits, "tore off, with a hair-pin, the gum from the whole alveolar process on the left superior maxillary bone, and pulled out, one after the other, every

tooth implanted in it, to wit: the two incisors, the canine, the bicuspid, and the first and second molars, which were in a healthy condition. Stupor is usually present, in post-epileptic conditions, as a more or less permanent factor, but may be so slight, so overshadowed by concomitant phenomena, as to be barely noticeable. Delusional or hallucinatory states with confusion and wordy excitement and restlessness, delusions of greatness or of a religious character, are often in marked contrast with the behavior of the individual which may be silly, indecent or vicious. Samt speaks of post-epileptic conditions of fear or fright. These are sometimes simply the outgrowth of intense and depressive sensorial impressions, for which the patient offers no explanation, and stand in marked contrast with cases accompanied by frightful hallucinations and great excitement.

INTERVALLARY ATTACKS

are such as happen in the intervals, and do not immediately follow or precede a convulsion. I agree with Spitzka, who says, "It is possible that all such cases are, after all, equivalents to imperfect convulsions." It is unnecessary to give any further notice to them as they do not differ in symptomatology with the others described, although they are apt to have a somewhat longer duration.

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Some Notes on African Fever with Cases.

During two years spent on the west coast of Africa it has been my fortune to meet with malarial poisoning in all its forms and in varying degrees of malignancy.

No white person can spend any length of time there without being attacked with fever. On the care he takes of himself, more than his constitutional vigor, depends, I think, his life. Certainly, this has all to do with the frequency and severity of the attacks. Immediately upon landing, and sometimes before, the system seems to imbibe the poison which,

however, may (but does not always) lie dormant until some little thing calls it forth. There are several things which, singly or combined, may serve to bring on a chill and its subsequent consequences. Any overexertion in the sun is very likely to be followed by an attack. Exposure to wet or cold, especially the cold air of the early morning seems to speedily induce an attack. Constipation favors the development of the poison. Mental excitement of any kind or alcoholic excesses soon result in trouble.

The natives of Angola suffer very generally from fever but almost always of a mild type. Those, however, coming down from the highlands to the coast often suffer severely. It is rarely fatal among the blacks. The whites at the coast, who are almost all Portuguese, lead generally dissipated lives; striving to overcome the dreary monotony of a trader's life by all sorts of excesses. In some of the hot seasons the mortality is frightful among them. Sometimes one-third of the whites die in a single season. The majority of the fatal cases seem to be of a cerebral type. The treatment adopted by the Portuguese is largely calomel with emetics. Quinine is used, but somewhat sparingly. The average duration of fatal cases is very short, from four to ten hours telling the story. A man may be well in the morning and buried at night. Very little ceremony being used. Up country, however, the results are different. Fatal cases are not so common. The fewness of the cases I have to present from up country, is due to the favorable climate and altitude. In all Bihe and Bailundu where I was stationed, there were only 18 whites during the two years I was there, and, as I said above, cases of a malignant type are vastly less frequent there than along the sea.

All whites suffered from chills and occasional intermittent attacks, but it was the exception to see a severe case. Those who took best care of themselves were least troubled. Generally upon the appearance of the premonitory symptoms (which grow to be well known) a dose or two of quinine, in size suited to the individual, would be sufficient to ward it off. This, however, must be accompanied by absolute rest. The

natives generally, use no treatment, except to lie down in the sun until the sweating stage appears. In my dispensary work among them, I used largely a mixture, each dram of which contained the following: Cinchonid, sulph, gr x, Tr Acon. rad., m v.; Tr. Menth. Pip., gtt., xx.; To be repeated if necessary. One dose, however, was all that was usually needed. For the whites, when trouble had actually begun, Warburgs Tr. in doses of two to four drams seemed best for general use and was followed by uniformly good results in the milder cases. Arsenic, I tried frequently and thoroughly, among blacks and whites, but observed no benefit as far as preventing attacks was concerned. As a tonic, it was useful. The following incomplete report of cases are taken from notes made at the time when under a pressure of work, and when I myself was often far from feeling at my best. They may however prove of some interest.

CASE I.

Senhor Madeiras, a Portuguese trader, about 24 years of age, leading a dissipated life; was taken with a chill and fever and not growing better, I was sent for, some 18 miles to see him. Upon reaching the place twelve hours after the first chill, found him presenting the following conditions: Temp. 106.5° F.; Pulse 120 and thready; exceedingly restless and nervous; headache; deeply jaundiced; was vomiting constantly; pain in loins and limbs. Was shown me about 4 ounces of what appeared to be pure blood passed from his bladder 8 hours ago. No secretion since. He would answer correctly all questions put to him, but if not spoken to for a few minutes would become delirious. Administered Warburgs Tinct. ½ oz., to be repeated in three hours. Also Pot. Chlor. gr. xx., to be repeated hourly for a time. Ordered a sinapism over region of kidneys, and Quin. Bisulph to be given next morning if he was alive. Saw him again the second day from that time. Temp. 99.°F; skin moist and cool; profuse secretion from kidneys. Bowels regular. No pain. Slept well. Had taken a little nourishment. Is still somewhat jaundiced. Administered Hydrag. Chlor. Mit. gr. x., and ordered a daily

dose of Quin. Bisulp. gr. xx., at bedtime. He progressed steadily from that time and was out in a week.

CASE II.

Senhor F. A. sergeant in Portuguese army stationed in Bihe. Was sent with about fifty black soldiers to quell a threatened uprising of the natives about 18 miles from the fort. Started at 8 o'clock P. M., and marched the distance through a pour of rain. Very muddy and hard walking. He had no sleep that night or next, until he again reached the fort. During night of exposure, had a chill, as also the following night. I saw him three days after first chill. Found him wildly delirious. Temp. 105+ F per. rectum; pulse 110; bowels moving frequently, and vomiting often; mouth thickly covered with black sordes. Not rational at any time. The only treatment given had been to fire the calves of both legs for a space the size of the palm of one's hand. This had been kept discharging by frequent irritation. It was found impossible to give him any medicine by mouth, as four men could not control him. Hypodermics of quinine had no seeming effect. He sank rapidly and died the same night.

CASE III.

Mrs. S. American. Had been eight years in the country, 3 years of which had been spent at the coast. Had had frequent attacks of fever, varying in severity. Had a miscarriage at six weeks, brought on by a fall. Recovered from it, but was still weak, when one week after leaving her bed, she overexerted herself and was attacked. Had a very severe chill at 9 P. M., which was controlled by hypodermic of Quin. Bisulp gr. x., Morph. Sulph. gr. $\frac{1}{8}$, with hot applications. Very soon began to vomit large quantities of bile. This was stopped by hypodermics of Morph. and Atrop. Was enabled to take two drams of Warburgs Tinct., and keep it down. Slept fairly well balance of night, until 6 A. M., when she awoke vomiting and purging. Now nothing availed to check the vomiting. Morph. Sulph., Cerium Oxalate, Cocaine Hyd-Chlor., Ipecac, Carboic Acid. Tr. Iodine, &c., &c., were tried in succession. At 9 A. M., began to be delirious. Secretion

of urine, scanty. At 1 P. M., none in bladder, nor was any passed again. Great pain over kidneys, not relieved by hot applications or stimulation. Two hypodermics of Morph. Sulph. $\frac{1}{4}$ gr.,; checked vomiting for one hour from 6 P. M., but it came on again. She passed soon into a comatose condition and died at 10 P. M., only 25 hour from initial chill. No autopsy. For seven hours before death, was deeply jaundiced.

CASE IV.

Mr. C., American. Had suffered from frequent attacks of fever, generally slight, lasting a day or two and relieved by Quinine or Warburgs Tr., in good sized doses. After severe exertion in sun at mid-day, experienced sudden lassitude, which kept up until a chill supervened at 6 P. M., This was relieved by usual remedies, but was followed by another in the afternoon of next day. On third day took Quin. Bisulph. gr. XLVIII, in two doses; one at 12 M.; the other at 3 P. M. Had, however, a slight chill again, and temp. rose to 104.5° F. Began to be jaundiced. Next day took Warburgs Tr. 2 drams every other hour and a double dose at three P. M. By this time was very yellow indeed; had complete anorexia, splitting headache, pain in back, urine very scanty and highly colored, no diarrhœa; evening temp. 106.4° F. No sleep. Next morning no better; I resolved to try an emetic; administered gr. i, Ant. et. Pot. Tart. As soon as emesis took place experienced great relief. A profuse perspiration came on and headache relieved. At noon Quin. Bisulph. gr. xx.; Temp. at 4 P. M., 101° F. Took nourishment. Next morning repeated the emetic with further benefit; jaundice reduced, temp. normal. Made a complete recovery in about one week.

These cases well illustrate the worst type of malarial poisoning.

No one there is safe from its effects. One day it may appear in its mildest form but the next may usher in a grave attack or one from which the victim may not recover.

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Flies and Cholera Transmission.—It has been often supposed that flies and insects might be agents in spreading the microbes of infectious diseases. Dr. M. Simmonds, of Hamburg (*Deutsche Med. Wochenschrift*, 13th October, 1892), investigated the matter in reference to cholera. His attention was called to the subject at a time when large numbers of bodies of persons dead of cholera were lying opened in the post-mortem room in the general hospital at Hamburg. The weather being warm and flies plentiful, there were always a great many of them about the bodies.

He captured a fly at random and put it in a culture medium. Besides a variety of saprophytic bacteria, there were a number of colonies of the cholera bacillus.

He further experimented as follows: Nine flies were placed in contact with a fresh section of gut from a cholera victim. At intervals of five minutes a fly was placed in a tube of gelatin, which was well shaken up and poured out on a plate culture. From the first six flies innumerable colonies of cholera bacilli grew. From the seventh there were 1,000 colonies, the eighth 32 and the ninth a large number.

In a second experiment six flies were kept a short time under a glass bell with a piece of cholera intestine. They were then placed in a flask for one and one-half hours. At the end of this time they were put in gelatin and plates poured. In each culture grew countless colonies of cholera bacilli.

These experiments show us that cholera bacilli are not destroyed even by one and one-half hours' drying, and when one considers how great a distance a fly might go in that time, it is plain they can be no feeble factors in the spread of cholera, especially since they frequently alight on and infect such foods as soups, sauces and milk, which furnish excellent mediums for the growth of bacteria.

The practical lesson from these experiments is obvious. All articles with which dejections from cholera patients come in contact should be carefully covered until they can be thoroughly disinfected, and that foods at such times are as carefully, as possible protected from flies. Also, when autopsies are held, the work should be done as rapidly as may be, the body quickly and carefully closed, and the table and articles used be scrupulously cleansed.—*Columbus Medical Journal*.

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ANNOTATIONS.

Gillespie (A. L.) On Some Results from the Chemical Examination of the Contents of the Healthy Stomach.—In a paper read before the Edinburgh Med. Chir. Society, the following conclusions were arrived at:—1. That proteids in solution have the power of attracting, and probably combining with hydrochloric acid. 2. That this acid so combined, even if greater in quantity and strength, does not prevent more free HCl from dialyzing through. 3. Hydrochloric acid has no power of combining with carbohydrates. 4. If in one case the acidity outside be less and in another greater, the contents being much the same, the acidity inside does not vary in proportion. 5. That if the proteid varies in concentration, the acidity inside varies with it. Dr. Gillespie then proceeded to detail some experiments performed on a patient who was an adept at removing the contents of his stomach with a stomach-tube. He suffered from a neurotic dyspepsia, in which the acidities present were nearly normal. After breakfast, consisting in turn of fish and bread, minced meat and bread, porridge alone and ripe fruit, the contents of his stomach were removed at frequent intervals, namely: at $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2, 3, 4 and 5 hours after food. The acidity found in each case was exactly proportional to the proteids in the food, except in the last, where the excess of malic and citric acids obscured the amounts of hydrochloric acid. Particular attention was directed to the quantity of the free HCl and the time at which it first made its appearance, the amount of

the proteid-hydrochlorides and the presence of lactic acid. The following deductions were made: 1. Free HCl is secreted by the stomach glands from the moment in which the food enters the viscus. 2. The time of the appearance of free HCl varies with the food, with its concentration, and with the state of the gastric mucous membrane. The time varies from the first half hour to the second or third hour. 3. The acidity during the earlier part of gastric digestion is so small, consisting solely in combined acidity, that the amylolytic action of the saliva can go on for a short time. 4. The free HCl secreted at first, combines at once with the proteids present in the food. 5. Proteid-Hydrochlorides are less antiseptic than free HCl. 6. The acidities per cent. differ in the filtered and the unfiltered contents. The total and free acidities are lower in the filtered, the combined higher than in the unfiltered. 7. The total solids and inorganic salts diminish per cent. throughout. 8. The stomach contents have no further digestive power unless there be some free HCl present. 9. The total acidity may vary from .108 to .36 per cent., the combined acidity from .072 to .324 per cent. and the free from .018 to .99 per cent., calculated in terms of HCl. 10. Heartburn cannot be caused by HCl combined to proteids. 11. The acidity of the stomach contents and the urine are often inversely proportional. In laying down some rules for guidance in diagnosis and treatment founded on the results of these observations, Dr. Gillespie deprecated the common practice of simply treating the local chemical disturbance without thought of the wider issues which were so often present. "The pain caused by acidity could be soothed better by proteids or by dilution of the contents with water than by the administration of alkalies. He also dwelt on the importance of proportional hyperacidity in cases of gastric ulcer and erosions.—*Rep. in Eng. Med. Press.*

A Bactericidal Water-Filter.—It has long been known that in times of cholera disturbance it is a useful precaution to add some harmless acid to drinking water. This, until the outbreak last year, was regarded as a prophylactic, but bacteriologists then discovered that some acids kill cholera bacilli quickly, and this is as true of the organic acids as the mineral acids. It was for that reason that natural lemonade was so strongly recommended last summer, and in that connection we briefly reported in our issue of December 31st some experiments by M. Girard, chief of the

Paris Municipal Laboratory, with citric acid, which he found to completely sterilize water containing cholera bacilli. Tartaric acid, we understand, has a similar effect; and taking advantage of this fact, Dr. Hans Brackeburche has devised a filter for the sterilization of water by means of tartaric acid. It consists of two parts—an inner within an outer cylinder, the interspace being packed with small pieces of marble up to three-fourths of the total height. Into the top of the inner cylinder is fitted a perforated tray, which is divided into three for the reception of tartaric acid in large crystals. It is only when the water is very bad, as in hot cholera-stricken countries, that all three spaces are filled with the acid. Each space, we may say, holds about two drams of acid. On filling the inner cylinder with water it is evident that the acid will be dissolved; then, as the water ascends the outer cylinder through the marble to the outlet tap, the acid is gradually fixed by the calcium carbonate, so that when drawn off the water does not taste sensibly acid, and it is slightly charged with carbonic acid gas. Such is the method of working the filter. As to the effects on water containing cholera bacilli, we have before us a report by Professor R. Fresenius, which is of a highly satisfactory nature. At different times he has added to sterilized water a broth-culture of cholera bacilli, and this he passed through the filter. One cubic centimeter samples of the water put in, and of the filtrate, were tested by plate cultures, and the results are shown in the following table.

The water was infected at 11:20 A. M.:

	INFECTED WATER.	FILTRATE.
11:20 A. M. }	Innumerable cholera	No cholera bacilli, very
11:40 A. M. }	bacilli.	few other bacteria.
12 noon . .	ditto.	ditto.
1 P. M. . . .	ditto.	ditto.
2:30 P. M. .	ditto.	ditto.
4 P. M. . . .	ditto.	ditto.
5 P. M. . . .	ditto.	ditto.
6 P. M. . . .	ditto.	ditto.
7 P. M. . . .	ditto.	ditto.
9 P. M. . . .	Sterilized.	ditto.

These results were corroborated by independent experiments on two occasions, and Professor Fresenius comes to the conclusion that twenty minutes' contact in the filter suffices to render a cholera-infected water permanently innocuous. We have not had the opportunity of personally corroborating these results, but Professor Fresenius's reputation bears great weight, and the principle of the filter is perfectly sound.—*Chemist and Druggist*.

Chittenden (R. H.) On the Influence of Borax and Boracic Acid on Digestion.—The antiseptic qualities of borax and boracic acid have long been recognized and there is no question that they both possess considerable capacity for preventing the multiplication of bacterial organisms. It has been the main object in the experiments about to be described to obtain positive evidence whether they have disturbing effect upon amylolytic and proteolytic action; or, in other words, will the presence of either borax or boracic acid in the stomach and intestines modify to any injurious extent the normal digestive processes?

I.—SALIVARY DIGESTION.

From the results it is evident that borax tends to inhibit the amylolytic or starch-digesting power of saliva.

The inhibition appears to consist simply in retarding the rate of action. There is evidently no destruction of the amylolytic ferment, but simply a diminution in the rate of action. Boracic acid tends to increase rather than check the amylolytic action of neutral saliva. It was further found that the addition up to 5 per cent. did not prevent the conversion of starch into soluble products, although no reducing bodies were found in the presence of this large amount of acids.

II.—GASTRIC DIGESTION.

The inference from this experiment is plain—that, so far as the purely chemical process of gastric digestion is concerned, the presence of moderate amounts of boracic acid not only will not impede the proteid-digesting power of the secretion, but, on the contrary, will actually increase the proteolytic action of the ferment. Borax, like boracic acid, when present in very small amounts, appears to increase rather than retard digestive action of pepsin-hydrochloric acid. This increase of proteolytic action

is, however, more quickly followed by retardation, as the percentage of borax is increased, than with boracic acid. Hence it would seem reasonable to assume that such quantities of borax or boracic acid as would ordinarily be ingested, either for therapeutical purposes or otherwise, would not have any pronounced retarding effect upon the purely chemical process of gastric digestion.

III.—PANCREATIC DIGESTION.

From this experiment it is apparent that the addition of borax to a neutral solution of trypsin increases very greatly the digestive action of the ferment; and it is furthermore noticeable that this increase in proteolytic power is proportional to the increase in the amount of borax up to 2 per cent., beyond which point the digestive action diminishes with the increased addition of borax. From the results with boracic acid, doubtless owing to its weak acidity, it has little or no power of checking the proteolytic action of neutral solutions of trypsin, until it is present in a digestive mixture in quantities beyond 1 per cent., and even then its retarding effect is not very pronounced.

In conclusion, the foregoing results would appear to warrant the statement that borax and boracic acid, when present in moderate quantities, can have little or no deleterious effect upon the more important chemical processes of digestion. On the contrary, it would appear that the presence of these agents may, in some cases at least, even accelerate the normal digestive processes of the alimentary tract.—*The Dietetic and Hygienic Gazette*.

The Cholera.—Under date of July 1st *The Lancet* gives the following account of the prevalence of cholera. ‘There is not much to be added of a very satisfactory or reassuring character to our report of last week. Cholera seems to be widely distributed at the present time, although, if we except Mecca, it has not manifested itself with epidemic strength or severity at any particular place. In Europe it has been generally mild in form but persistent in character. At Mecca, however, the outbreak has been very severe and is still increasing with alarming rapidity. The deaths on June 25th numbered 455 and later reached over 1,000 a day. During the first ten days of last month 62,000 pilgrims passed through Jeddah alone, and further arrivals are still an-

nounced. As regards France, cases of cholera have occurred in the northwest, west and south of that country, and the disease seems to have been widely distributed, the health of Paris keeps good, but not so that of other parts of France. For some time past cholera prevailed to a limited extent in Brittany, especially at Lorient and Quimper, and subsequently the disease appeared in Southern France. Cases of cholera, with the usual proportion of deaths, have occurred at Nimes, Montpellier, Cette, Besseges, Frontignan, Alais, Lyons, Toulon, Nantes, Hyerea, and Marseilles. The disease is extending southeastward to the frontier of Spain. The valley or Andorra in general has suffered, and at Pamiers, in the Arriege department, the visitation is said to have been severe. Nantes in the west is affected, with a prospect of the disease extending up the valley of the Loire, and there are rumors of suspicious cases of choleraic disease at Bordeaux. According to a telegram from Paris of June 28th, it is reported from Carcassone that an outbreak of cholera, which is attributed to the bad water, has occurred in the village of Luc-sur-Aude, where out of 200 inhabitants, 12 deaths have registered and 15 cases are under treatment. The people have fled the commune. Fresh cases are reported from Hyeres and Seyne.

Telegrams from St. Petersburg, dated July 12th, report that the city has been officially declared to be in a healthy condition. Fifty medical men who had been detained at the military academy have been dismissed to their home. The last weekly official report on the epidemic in Russia gives the following figures for the provinces where the disease prevails: Podolia, 310 new cases, 100 deaths; Bessarabia, 35 new cases, 15 deaths; Orel, 32 new cases, 12 deaths; Kherson, 18 new cases, 9 deaths; Toulou, 8 new cases, 3 deaths. From Budapest the news comes that true Asiatic cholera prevails in Hungary to a slight extent, the prompt measures taken by the government having prevented thus far any alarming spread of the disease. There has been an average of two cases daily. The number of deaths, if there have been any, has not been reported. Eighty-five cases of cholera are reported in the hospital at Alexandria, Egypt. Forty deaths from the disease have occurred. There were five new cases of cholera and four deaths from the disease in Toulon during the twenty-four hours ending July 12th."—*Medical Record*.

Of Interest to Those Contemplating Visiting the Great Columbian Exposition at Chicago, Ill.—Those of our readers who contemplate visiting the World's Fair should arrange for their hotel accommodations in advance of their going, thereby saving a great expense and annoyance in looking up a suitable and reasonable hotel after their arrival. We decided to, and have made inquiry concerning the various hotels at Chicago as to their price, rooms and location, and after careful investigation, have decided to recommend the hotel, "The Syracuse," situated at Windsor park, at the foot of 75th street, it being near the fair grounds, partially surrounded by a beautiful grove, fronting on the shore of Lake Michigan, which contributes its cool evening breezes to refresh the tired frame after a day's jaunt, and to make sleeping easy and delightful. "The New York State Educational Journal" endorses the hotel, "The Syracuse," as follows:

Some time ago we promised our readers to visit Chicago and examine the hotel accommodations offered with reference to recommending advance arrangements for the summer. Immediately on our return from Egypt we went to Chicago and looked over the ground carefully. We have decided to recommend "The Syracuse," a building erected by men we know and in whom we have confidence, and which seems to combine more advantages than any other.

These requisites seem to us indispensable:

(1) The hotel should be on the lake. Chicago is a hot place in summer, and only the lake breezes will make sleeping at all comfortable.

(2) It should be reached from the Exposition grounds *by boat*. How annoying it is to crowd into horse cars and trains on a hot afternoon all our readers know. At Paris nine-tenths of the visitors were carried by the little river-boats.

(3) The drainage should be perfect. *This will be the great danger at Chicago*. Hundreds of cheap buildings have been erected with cheap plumbing and cess-pool reservoir. If typhoid fever does not result, it won't be the fault of the builders.

(4) There should be the quiet and privacy of home. This is the objection of the turning of school-houses into dormitories. Sight-seeing is hard work, and when the day is done the visitor should have a room of his own to wash and to rest in.

(5) The price should be reasonable. We are satisfied that the lowest rate at which it will be possible to obtain rooms that are at all suitable is one dollar a day.

"The Spracuse" combines all these advantages:

(1) It is on the lake, fronting the shore, 300 feet from the water, where there are pavilions for bathing, boats, fishing, etc. The few rooms fronting the lake will be as desirable as one could wish, and all will be comfortable.

(2) The steamboat pier is directly in front of the hotel. Besides the hotel itself is only a mile from the grounds, which can thus be reached by easy walking. This will be a great consideration, for the electric display at night, for which a million dollars has been appropriated, will be one of the important features of the fair. It is also two blocks from the electric cars, and three blocks from the station of the Illinois Central, and those wishing to go to the city will be much surer of a seat than from the fair grounds.

(3) The rooms are all lathed and plastered, and well furnished with woven spring mattresses. When you lock the door you are in your own castle, as much as at home. This is different enough from tents and dormitories.

The dining room is on the European plan and the rates will be reasonable.

TERMS.

The hotel accommodates only 400 persons, and the rooms we selected and engaged as the best will accommodate only 200. Early application should therefore be made. If you know just when you will go, we can assign you a particular room, and give you a diagram of the hotel showing just where the room is located. If you are not ready to fix on a specific date, we can give you a contract to furnish you as good rooms as are vacant at the time you present yourself. It is better however, to engage for a fixed date.

For a diagram of rooms, prices and how to reach the hotel quickly, address, WM. M. KNAPP, Windsor Park, Chicago, Ill., care hotel, "The Syracuse."

Cholera Ravages Russia.—Whole provinces attacked by the dread disease. Deaths by the score. A marked increase of the ravages of cholera in parts of the empire and that the disease is epidemic was shown by official returns. From July 9 to July 22

there were in Podolia 1,165 cases and 350 deaths; in Orel, from July 16 to July 22 there were 234 cases and 91 deaths; in Tholla 77 cases and 19 deaths from July 16 to July 22; in Moscow from July 16 to 22, 72 cases and 21 deaths. The epidemic exists in less severe form in Vialka, Kazan, Reazan, Offa and Sembers. —*St. Petersburg, July 31.*

REVIEWS AND BOOK NOTICES.

A Text-Book of Medicine.—For students and practitioners by Dr. Adolf Strumpell professor and director of the Medical Clinique at Erlangen. Second American edition translated by permission from the second and third, and thoroughly revised from the sixth German edition, by Herman F. Vickery, A. B., M. D., instructor in clinical medicine, Harvard University; physician to out-patients, Massachusetts General Hospital; fellow of the Massachusetts Medical Society, etc., and Philip Coombs Knapp, A. M., M. D., clinical instructor in diseases of the nervous system, Harvard University; physician to out-patients with diseases of the nervous system, Boston City Hospital; member of the American Neurological Association, fellow of the Massachusetts Medical Society, etc., with editorial notes by Frederick C. Shattuck, A. M., M. D., Jackson, professor of clinical medicine, Harvard University; visiting physician to the Massachusetts General Hospital; member of the Association of American Physicians; fellow of the Massachusetts Medical Society, etc., with one hundred and nineteen illustrations. D. Appleton & Co., 1893.

That a sixth edition of this work in German has been called for since it was written ten years ago, shows in what high respect and esteem it is held in Germany, and its value is emphasized by the fact, that since it was translated into English in 1886, it has been adopted, either as a text-book, or a work of reference, in twenty-eight medical schools in America. Being thus so widely and favorably known, it does not need an extended criticism to show its scope or describe its peculiar fitness as a text-book, but it is sufficient to say that the most recent advances in medicine have received their proper attention in this latest revision, and that every chapter of the book is well abreast with the scientific knowledge of

to-day. The book is thoroughly to be recommended for its accuracy, broad and intelligent handling of each subject treated, together with the healthy conservatism which pervades the whole.

Blaine's Handy Manual of Useful Information.—There has just been published in Chicago a most valuable book with the above title, compiled by Prof. Wm. H. Blaine, of Lancaster University. Its 500 pages are full of just what its name implies—useful information—and we fully advise all our readers to send for a copy of it. It is a compendium of things worth knowing, things difficult to remember, and tables of reference of great value to everybody, that it has never before been our good fortune to possess in such compact shape. Our wonder is how it can be published at so low price as is asked for it. It is handsomely bound in flexible cloth covers, and will be sent to any address, postpaid, on receipt of 25 cents in postage stamps, by the publishers. G. W. Ogilvie & Co., 276 and 278 Franklin St., Chicago, Ill.

Acometric Syllabus, Biologic Therapeutics. — Parke, Davis & Co. have just issued, for gratuitous distribution to inquiring physicians, two valuable brochures, one entitled "Acometric Syllabus" and the other "Biologic Therapeutics." The first named work embraces 42 closely printed pages giving diseases, and indications in each, which may be met by the use of Diurnules and Diurnal Tablet Triturates. It will be of much interest to practitioners requiring a system of medication involving the most certain remedies in the minutest form. Under the head of "Biologic Therapeutics," are furnished reprints of the lecture of Hector W. G. Mackenzie, M. A., M. D., (England) on "The Treatment of Myxœdema and other diseases by the use of certain Organic Extracts," also an illustrated paper by Edward Carmichael, M. D., Edinburgh, on "Cretinism treated by the Hypodermic Injection of Thyroid Extract and by Feeding," besides excerpts from prominent medical journals upon the use of Thyroid gland in therapeutics. Either or both of these pamphlets will be mailed free to any physician applying to Parke, Davis & Co. Detroit, Mich.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received.

The Treatment of Hernia. By Alexander Dallas, M. D.

The Clinical Value of Repeated Careful Correction of Manifest Refractive Error in Plastic Iritis. By Charles A. Oliver, M. D.

Colotomy. By Charles B. Kelsey, M. D.

Our Dispensaries, Hospital, Philanthropy, Frauds and the Necessity of Medical Reform. By L. F. Criado, A. D., M. D.

The Etiology of Laryngismus Stridulus. By John O. Roe, M. D.

The Correction of Angular Deformities of the Nose by a Subcutaneous Operation. By John O. Roe, M. D.

The Treatment of Alcoholic Inebriety. By F. Peterson, M. D.

Leptothrix Mycosis of the Tonsil, Pharynx and Base of Tongue. By William Cheatham, M. D.

Paralysis of Laryngeal Muscles, With Cases. By William Cheatham, M. D.

The Treatment of Choleraic Diarrhoea. Published by Lambert Pharmacal Company.

Reminiscences of the Founders of the Women's Hospital Association. By Thomas Addis Emmet, M. D.

The Present Status of Electrolysis in the Treatment of Urethral Strictures. By Robert Newman, M. D.

Cremation and Its Importance in Cholera. By Robert Newman, M. D.

The Cure of Complete Prolapse of the Rectum by Posterior Proctectomy. By J. J. Roberts, M. D.

Two Years' Experience with Pelvic Massage in Gynecological Affections. By H. N. Vineberg, M. D.

A Plea for a Just Estimate of the Value of Electro-Therapeutics in Gynaecology. By Hiram N. Vineberg, M. D.

Diathetic Maladies and Their Dosimetric Treatment. By Dr. Adolph Burggraave.

Revue Statistique Des Maladies de La Gorge, Du Larynx, Du Nez et Des Oreilles. Par Le Docteur Beausoleil.

Traitement Chirurgical Des Affections Inflammatoires and Neoplasiques De L'Uterus et de ses Annexes. Par E. Doyin.

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Some Matters of Sanitary Interest in Albany.

BY F. C. CURTIS, M. D.,

CHAIRMAN OF THE COMMITTEE ON HYGIENE OF THE MEDICAL
SOCIETY OF THE COUNTY OF ALBANY.

Street Pavements.—There is no direction in which Albany has made more progress than in the paving of the streets. Since 1885, according to the last report of Mr. Andrews, city engineer, the percentage of cobble-stone pavement has fallen from 77.5 to 50.9, and granite pavement has risen from 17.9 per cent to 31.8, and 12.3 per cent is asphalt. The amount of pavement has risen from 52 miles, of an average width of 36 feet, to 60.77 miles. The new pavement is vastly smoother, cleaner and more durable.

An ideal pavement, which has not yet been found, would possess these characteristics: Durability, moderate cost of construction and maintenance, slight resistance to traction, secure foothold for horses, smoothness of surface to prevent accumulations of water, impermeability to water, noislessness; most of which, aside from cost, are sanitary considerations. The granite block, which is as yet our best all-around pavement, lacks in that it is excessively noisy and, as generally laid, in impermeability, the wide-open joints absorbing liquids, or, where the sand filling is washed out, allowing water and filth to accumulate. The latter objection is being overcome in recent work by filling the joints with some form of pitch or cement. It will always be noisy and will always

lack smoothness in use. There is no doubt that noise is a sanitary evil that is of considerable magnitude on residence streets.

While no pavement is ideal, yet there is one which, under suitable conditions, may be commended as seeming to possess more characteristics of an ideal pavement than any other, and that is brick. Bricks made of suitable clay and properly vitrified throughout will resist a steel drill and a chip will cut glass, will absorb very little water and are not readily fractured. The pavement laid with a close joint permits the retention of very little liquid. It is the smoothest and most noiseless of pavements, its smoothness contributing to its durability. It should be laid above a bed of concrete, though much has been laid on sand; with the concrete and with imperfect bricks culled out, there can be no depressions formed in which puddles may collect. Its sanitary value depends on the quality of the brick and the care of construction. It is fairly economical, its cost, with brick at \$20 per M., which I am told good bricks will cost delivered here, being less than that of granite, with open joint; it is reported to have cost \$1.40 per square yard in Galesburg, and about \$1.80 in Syracuse on concrete base. It is not adapted to our steeper hill streets, as it does not give good foothold to horses. But for residential streets that are fairly level, it may well be advocated as having sanitary characteristics to commend it—noiselessness, smoothness, cleanliness and impermeability. I have seen this pavement in Syracuse, where it is thought highly of by the health authorities and it is coming largely into use elsewhere.

The Death Rate in Albany.—A good deal has been said of late about the death-rate of cities, in the public press, and incidentally of that of Albany. Much of this has been to Albany's disadvantage.

The factors upon which a death-rate is computed are very elastic. This is shown by the following variable rates, as published, of several large cities for 1892: Chicago, 18.23 deaths per 1000 population; New York, 24; Philadelphia,

22; Brooklyn, 22; Baltimore, 23.26; Boston, 23.92; San Francisco, 19.06; Cincinnati, 20.37; New Orleans, 29.88; Washington, 24; Detroit, 24.93; Milwaukee, 17.81. These figures vary from 17.81 to 29.88, though this high rate, in New Orleans, as that of other Southern cities, is largely due to the mortality of the black people, which is always double that of the white. Published rates of death vary with the thoroughness of the collection of death returns. It is safe to say that any death-rate steadily below 20 per 1000 population annually in a large city is to be regarded with scrutiny and questioned as to its reliability. It implies an average longevity of 50 years, 22 implying 44.5 years. In 1892 there were nearly 20 deaths per 1000 outside of the six larger cities in this state. Of these 20 deaths not more than 6 were due to zymotic or preventable diseases, and it is evident that no value whatever is to be placed on some reported death-rates of 10 or less, aside from the fact that such a death-rate implies an average longevity of 100 years. For the last eight years the average death rate of Albany has been 23.44. For the same period, that of New York city has been 24.50; of Brooklyn, 21.40; of Syracuse, 20.00; of Buffalo, 22.50; of Rochester, 20.25. In 1892, there were 2,558 deaths in Albany, the largest number of any year on record. This makes a death rate of 26.00 and this has attracted comment.

In looking for the cause of this, it should be said that, for one thing, Albany secures a record of every death; this is not true of many places. It should also be noted that Albany is a city of very slow growth; cities having a constant influx of young, healthy life, always show a comparatively low rate of mortality. Our public institutions bring in an excess of feeble and aged persons.

The gripe epidemic in the early part of the year, caused a large number of deaths, and is the chief cause of our high death rate last year. This shows in the mortality from respiratory and other local diseases. It is, however, true that for 1892, our zymotic mortality was excessive, there having been 550 deaths from these causes, or 5.5 per 1,000 population,

which is equivalent to one death in 180 population, the rate for this state being 3.6 per 1,000, or one to 280 population. An extensive epidemic of scarlet fever prevailed all the year, 162 deaths, or nearly one-third of the zymotic mortality being from this cause, as many deaths as occurred during six or seven years preceding. Diphtheria caused 117, which is more than in any year since 1888. Measles also caused a larger number of deaths than usual. These are diseases the medical profession can do much to control, and they should be controlled, especially scarlet fever and diphtheria.

Much interest centers, however, in the fact that we have, not this year especially, but constantly, a large mortality from typhoid fever and diarrhoeal diseases. The latter caused 165 deaths. The etiology of diarrhoea is so various that it is difficult to draw comparisons in regard to prevalence that are of value, with other cities, for its causes are almost wholly urban. With typhoid fever the case is different—we have pretty definite knowledge as to its causes. A specific cause is necessary for its production; this cause is present in the intestinal discharges; and this specific cause reaches the body of a susceptible person mainly through the channel of water or other uncooked food impregnated with fecal matter or through fecal effluvia—these explain about all the events that have been recorded in connection with this disease. For eight years there have not been more than two months in which typhoid fever has not caused deaths, although its seasonal increase and decrease have not varied from the normal. During that time the average number of deaths yearly from it has been 73. There are no reliable statistics prior to 1882, but the disease has long been prevalent here—to a less degree probably for the decade 1870 to 1880, during which there were printed reports which show an average of 35 deaths annually. Relatively to other deaths they then constituted 2.3 per cent of the total mortality, and for the last decade 3.3. It is seen from this that typhoid fever is and has long been a prominent epidemic disease in this city. The figures I give are the result of careful study.

Compared with other places, during the last eight years, on an average, New York has had 21.6 deaths from typhoid fever to each 100,000 population annually; Brooklyn, 18.4; Buffalo, 38; Rochester, 40; Syracuse, 38.4; Poughkeepsie, 32; Kingston, 16; Newburgh, 32; while Albany has had 76. In 1892, which was a year of low mortality for this disease here and elsewhere, there were 25 deaths per 100,000 population in the four large cities of the state, (New York, Brooklyn, Buffalo and Rochester), while in Albany there were 50. In the six cities and villages of Troy, Albany, Cohoes, West Troy, Schenectady and Amsterdam, there were 66, Troy being the lowest, 34 per 100,000.

There is not time for lengthy statistics. I instance these two groups in contrast; the latter drinks water from the stream flowing in front of the towns in it and into which they sewer: the former takes its water from a remote source. The same extraordinary discrepancy in the proportions in connection with the same difference in water supply will be found everywhere else; in other smaller cities of the state, as Binghanton: in the larger cities of Cincinnati, St. Louis, Chicago, Hartford, and others as reported.

American and English physicians have accepted it as settled that the chief medium by which this infection reaches the individual is the drinking water. On the continent, in Germany especially, the profession has been divided between the "ground theory" of the origin of typhoid fever, with Pettenkopfer as its chief advocate, and the "water theory," with Koch as the leading advocate. It is clear that the "ground theory" is losing its adherents. I am myself quite convinced that, to a large degree the "ground theory" may be resolved into the "water theory", and that its apparently complex etiological action finds its ultimate expression in drinking water as the immediate means of infection. It assumes that the germs of the disease pass into the soil, where they remain perhaps for a long time, retaining their vitality, and under favoring conditions, the chief of which is a low state of the ground water, such as exists in time of drought,

they undergo a process of development, and rising from the soil infect the the atmosphere. I believe it is rather true that, having elaborated, they find their way to sources of water and by means of it are carried into the system. Recorded observation proves that outside of exceptional cases, typhoid fever is contracted simply because we drink water that comes from our sewers.

From this city and the towns above us 100,000 tons of excretory matter are carried yearly into our rivers, 40,000 tons being contributed by the human beings of Albany; besides this is the waste from lower animals and other sources, these figures being based on Letheby. The Hudson is the natural effluent of this region—its great drain. Should it not be relegated to this function alone, so far as our domestic relations with it are concerned?

Garbage Disposal.—One other sanitary matter I take time to barely mention. There is need in Albany of some more systematic method of disposing of garbage and like waste. There never was any method of value, and for the last few years it may be said there has been practically none. People have to burn it themselves (than which there is no better way of disposal, if they would do it) or trust to the voluntary removal by itinerant collectors. Much of it fails of suitable collection, and especially among the poorer people, it is without question a source of evil and danger. A sanitary committee of ladies has done much to rouse public sentiment regarding this. To institute a suitable plan for collection of garbage, and to decide upon the best method for disposing of it, is a considerable undertaking, and will involve a large outlay, and should be carefully planned. But it should be done, and it is probable that the most satisfactory and perhaps least expensive method would be by means of a suitable crematory.

Albany has every natural advantage for health, in climate, topography and soil; with good water, good sewers, good pavements and suitable waste removal, it ought to be an exceptionally healthy city. It is on the great highway of travel,

and exposed to transportable diseases, but with energetic management it can be, and to a large degree has been kept free from these.

Two Cases of Multiple Abscess of the Liver.

BY W. H. SWEET, M. D.

I shall attempt to report a couple of cases, which, although perhaps not so very rare, are seldom recognized ante mortem. I refer to cases of multiple abscess of the liver, associated with retro-peritoneal pus. The hepatic abscesses are undoubtedly secondary to the collection of pus behind the peritoneum, and the latter condition may be due to several causes. While a student at the Albany Medical College I remember having seen a specimen of the kind which was presented to the class. The condition was said to have been suspected before death, although there was a difference in the opinion of the attending physicians, and to have occurred in a young subject; at the autopsy it was demonstrated beyond all question of doubt.

The first case is that of J. B., aged 22 years, bartender, coachman, etc. by occupation, single. Family history good. He had never been very strong and had indulged in alcoholic and other excesses; he had never had any venereal disease however. About one year ago he had a severe illness, but the character could not be definitely learned. August 28, 1892, he was suddenly seized with pain and cramps in the abdomen, which compelled him to take to his bed. He gave the history of having had attacks of severe pain accompanied afterward by chills, fever and sweating. He had been delirious and slept only a few minutes at a time. A diagnosis of typhoid fever had been made. He was admitted to St. Peter's Hospital, September 13, 1892. He was then complaining of headache and insomnia. Had no cough, expectoration or pain in the upper part of the chest. Almost complete anorexia, but was able to retain what little he did eat. Complained of localized areas of pain and tenderness over the abdomen. Functions of bladder and rectum, normal. His temperature

at the time of entrance was somewhat elevated, and pulse slightly accelerated.

Physical examination.—Patient tall, anæmia, emaciated, dusky fallor of skin. He had the appearance, decidedly, of a tuberculous patient. Tongue coated with a thick brown fur. Chest presented nothing abnormal by inspection or palpation. Area of hepatic dullness, slightly increased; splenic dullness, normal. Myoidema extremely well marked. The respiratory murmur over the apex of the right lung was somewhat harsh, but being so, normally, and the patient presenting no symptoms of pulmonary trouble, it could not be positively said that there was anything pathological there. Otherwise the heart and lungs gave no abnormal signs. Nothing significant was found in the urine by ordinary tests. We were reluctant to make a diagnosis. Soon after coming into the hospital he had several intense rigors, irregular in time, followed by elevation of temperature and profuse sweating, indicating pus. The temperature then became very irregular, and continued so throughout the course of the disease. It was usually lowest in the morning and varied from 96°F. to 105°F. A very prominent symptom was the localized areas of pain and tenderness over the abdomen and region of the liver especially. These areas would last for a few days and then gradually pass away to appear in a different location.

These symptoms continued, and the patient gradually became more emaciated and weaker. Finally he developed a colliquative diarrhœa with watery discharges; he complained of pain along the spinal column and died October 23, 1892. At the autopsy we found a well marked beginning tuberculosis, at the apex of the right lung, otherwise the lungs, heart, spleen and kidneys were normal. On the under surface of the liver were evident tuberculous masses, which had caused a localized peritonitis, so that the intestines were adherent in those places. The liver was somewhat enlarged, and on section contained a large number of small abscesses, varying in size from a pin's head to a small hen's egg. There was not a trace of free pus in the peritoneal cavity, but behind the peritoneum,

in front of the vertebral column was a large collection of purulent matter. The vermiform appendix was perfectly normal, as far as could be ascertained.

The next case is H. P., aged 27, magician, single. Family history, good. Excepting three attacks of colicky pain, which he mentioned, the last having occurred six months before he entered the hospital and lasting only a short time, he had always been in good health prior to this illness. In the morning of November 2, 1892, he was taken suddenly with a severe pain in the abdomen, which continued in spite of treatment. He was admitted to the hospital November 11, 1892. At the time, he complained of headache, dizziness and sleeplessness. He had a bad taste in mouth and severe pain in the right hypochondrium, extending to the right shoulder and toward the right hip. No cough or expectoration; no vomiting. Patient was short in stature and more than ordinarily well developed. Skin had a brown tinge, but conjunctiva was normal in color. Tongue coated with thick brown fur and indented by teeth. Large cicatrix on left side of chest, the result of a burn in early life. Areas of hepatic, cardiac and splenic dullness, normal. No abnormal signs on auscultation. Abdomen neither distended or retracted. Temperature 103°F.; pulse 95; respiration 28. Urine scanty, highly colored and contained no albumen. He had been in the hospital only a few days, when he began to have severe rigors, irregular temperature and profuse sweats. He emaciated very rapidly, and myoidema became well marked. Hepatic dullness became increased in extent, both above and below. A mass about two inches long by three-fourths of an inch broad was felt just inside the anterior superior spine of the ilium on the right side. It was movable, not extremely tender, and evidently the appendix. About one inch inside the first was a nodule about the size of a pea, apparently in the abdominal wall and exceedingly tender.

These enlargements gradually became less distinct and finally could not be felt. Patches of pain and tenderness appeared over the abdomen and liver; they were accustomed to

change their location every few days, so that with the other case in mind, this fact was very noticeable. He also complained of areas of pain over the back. Toward the end a diarrhoea made its appearance. During the course of the disease the temperature was very irregular, but was usually highest in the evening; it ranged from 95°F. to 105 1-5°F. I have never seen another case in which the temperature varied so much inside of twelve hours. The pulse oscillated between 70 and 100 per minute, and the respiration between 25 and 40 per minute. His death had the sweetish odor of pyaemia during the last few days. For a few hours preceding dissolution he complained of general intense pain over the abdomen; it became distended and tympanitic, and he died Dec. 28, 1892.

At the autopsy the patient was found to be extremely emaciated. The lungs, heart, spleen and kidneys were normal. The abdominal cavity presented signs of a recent peritonitis, but no pus. The liver was somewhat enlarged, and on being opened was found to contain many small abscesses. The vermiform appendix was distended by a thick purulent substance, and was adherent to the posterior wall of the cavity. Behind the pentoneum, in front of the spinal column, was a large collection of pus.

Whatever may be the cause, the beginning, course and duration of the two cases were very similar, so much so that a probable diagnosis was made in the second from the symptoms in the first case. The points upon which I place special importance, are these: The patches of pain and tenderness over the abdomen and liver, and their change of location; irregular rigors, irregular temperature and profuse sweats, indicating pus somewhere; slight increase in the area of hepatic dullness; rapid emaciation and progress of the disease without regard to treatment. When such a case presents itself I shall not hesitate in making a diagnosis of multiple abscess of the liver with retro-peritoneal pus.

Cholera: Its Prevention and Treatment.

SURGICAL IRRIGATION OF THE INTESTINES
AND

PEROXIDE OF HYDROGEN (MEDICINAL).

BY ELMER LEE, A. M., M. D., CHICAGO, ILL.

(From *The Chicago Clinical Review*, April, 1893.)

A mass meeting of physicians for the consideration of the above subject was held at the Great Northern Hotel, Saturday evening, March 18, 1893, under the auspices of the Practitioners' Club of Chicago. There was a large attendance.

Dr. C. D. Westcott called the meeting to order at 8:20 P. M., and Dr. DeLaskie Miller was chosen Chairman of the meeting in the absence of Dr. N. S. Davis.

Dr. Miller in his opening remarks, said: This is an unexpected honor to be called upon to fill the place of the gentleman who is unavoidably absent; but as the chairman of this meeting is to be little more than a figurehead, I will accept the honor with thanks. This is an important meeting, and I trust that the attention and interest of it will be given to the gentlemen who will occupy the time. Without further remarks we will proceed to the business before the meeting.

After remarks made by several medical gentlemen on the different phases on the subject of cholera, Dr. Elmer Lee, of Chicago, read the following paper:

The leading propositions suggested and tried in the treatment of Asiatic cholera during the epidemic of 1892 in Europe consisted of the following general plans. Early in the epidemic, lactic acid treatment was proposed on the ground that it would neutralize the alkaline accumulations in the bowels and so stop the multiplication of the bacilli.

An Englishman residing in Paris considered cholera a hyperæmia of the spinal cord. His proposition was ice poultices continuously applied to the region of the whole spinal column. A small pamphlet was published by the

doctor in defense of his conclusions and to present testimonials in favor of his congestion-theory. As this system of management was not seriously considered by cholera physicians its efficacy cannot be stated. The use of large doses of the Russian remedy, salol, the invention of Prof. Nenski, of St. Petersburg, grew in favor as a new remedy during the epidemic. The average result of cases so treated in St. Petersburg, and by my American colleague, Blackstein, in Baku, and in other provinces in Southern Russia, could not be said to be satisfactory. Finally, at the last of the epidemic, its influences had come to be considered less and less valuable—this, however, can be said—it was all in all more largely used than any other new remedy. Still it would not be safe to place too much trust in it.

Calomel was everywhere a remedy even more used than salol. Formerly this drug was used in very large doses, but last year it was the very small doses which found favor. Especially was this true in the treatment of cholera in Hamburg.

Of the surgical measures, the infusion of solutions of salt were most practiced. The solution consisted of distilled water in which was dissolved one half of one per cent. of common salt. This liquid was warmed to the temperature of the blood and either introduced directly into some large vein or injected with a long needle and a large barrel syringe beneath the integument of the abdomen. The amount of salt solution used in either case would be from one pint to one quart each time. In one case treated at Hamburg as much as thirteen quarts of salt-water was used from first to last. The patient recovered. The subcutaneous injections were frequently followed by cysts and sometimes abscesses appeared. Intravenous injections sometimes proved a godsend, but more frequently disappointment could be said to be the result. These injections were only used in the third period of the disease or the stage of collapse, algidity or asphyxiation, at which period, it would be rather unreasonable to expect recovery by virtue of any treatment.

The Italian treatment, as it was called in Russia, was much used, and with frequent gratifying success. This practice was introduced by Prof. Cantani. It consists of a clyster composed of the following constituents:

Boiled water or infusion of chamomile (warm), 2 litres.

Tannin, 5 to 10 grams.

Laudanum, 30 to 50 drops.

Powdered gum-arabic, 50 grams.

This or some part of the solution is occasionally passed into the rectum, to be retained if possible by the patient. In the experience of those who have followed this method of treatment almost every case taken at the beginning of the disease has lived. It is certainly more reasonable in principle than simple medical management.

Of the experiments of Ferran, of Spain, and Haffkine of the Pasteur Institute, much has been said, but what has been said has failed to bring conviction to my mind. As cholera itself cannot be said to protect one who has had the disease, and recovered, against a second attack, then that which is less than cholera in influence cannot be expected to do it. The seat of the disease is located in the intestines, and, so long as the infectious juices are there, the lymph vessels in the processes of physiological function will continue to infect the blood. Can we hope to thwart physiological action of absorbents by hypodermatic injection of cholera culture, made at some time, it may be years previous to the date of the passing epidemic? The answer by my judgment, is that such expectations are flimsy. The caprice of Stanhope at the Hamburg Hospital cannot seriously pass for an argument in favor of anti-choleraic vaccination. His interesting but wildly exaggerated stories were the product of a newspaper's love for sensation, and profit of increased sales of newspapers.

My own personal thoughts concerning cholera and the method of treatment, as practiced by me both in Russia and at Hamburg during the epidemic of 1892, will occupy the remaining time allotted me.

It is now well known that cholera is a disease of the alimentary canal. Its inciting cause is believed to be a germ taken into that canal through the medium of food and drink. There its presence is protested against by the absorbent vessels, which eliminate from the food the nutriment of the body. The first symptom produced by foreign invasion in the intestines is a diarrhœa, which may precede vomiting from one to three or even four days. If this be true, the bowels must be the seat of disorder, and the most direct method of reaching them by medication must be the best. If the stomach could be emptied of the foul material before the poison has passed further, there might be speedy relief and, indeed, no real cholera. After it has passed into the intestines, medicine administered through the stomach may be slow in reaching the seat of the disease, and even then can only mingle with the poison, holding out the hope that the one will be neutralized by the other. This hope, in truth, is seldom realized. But if the poison can be removed from below, the course is left clear for nature to recuperate itself. The diarrhœa is an evidence of the great exertion put forth by the organism to rid itself of the death-dealing agency, and probably it would be effectual in the great majority of cases were it not that the nervous forces of the system are exhausted by the terrible strain before the required evacuation of the bowels is completed. A large irrigation of hot water, made soapy preferably by neutral liquid soap, introduced into the colon through a suitable rubber tube, is the simplest, and I am prepared to say further that it is a more satisfactory way of treating cholera than any other with which I am acquainted. The time to begin the irrigation is at the very earliest possible moment. Save the blood every single moment of infection by immediate action, even if there is the faintest suspicion of cholera either with or without diarrhœa. In every post-mortem seen by me of cases of death in which there had been no marked diarrhœa, the colon and small intestines were filled with accumulations of choleraic matter which swarmed with comma bacilli. The rule from which

there need never be deviation is to treat the patient by irrigation of the bowels and rinsing of the stomach, without waiting for confirmation of the diagnosis either with the microscope or by the culture test. The best part of the practice is always to save the patient, even at the expense of fine statistics. In private practice the syringe would take the place of the irrigating apparatus. The exact model of the irrigating table used by me in St. Petersburg may be seen at Mr. Sargent's store on Wabash Avenue.

For internal treatment my experience taught me that the *medicinal peroxide of hydrogen, of Marchand*, given in cupful doses of the strength of 4 per cent., or even much stronger, was a better antiseptic than any other drug heretofore known in the treatment of cholera. Then the treatment would be, first, immediate irrigations with hot water and soap, using from one to three gallons at a time twice a day for the first and second day. Once a day afterwards if required, which is seldom the case. At the same time cleanse the stomach with *medicinal peroxide of hydrogen* and hot water used freely—by urging the patient to drink. The feeding and nursing are the same as would be required by a patient suffering from septicæmia or other prostrating disease. My belief is based upon personal experiences and the following surgical measures and medicinal treatment, viz.: Irrigation of the bowels, *always first* with hot water made soapy with neutral liquid soap or a good castile soap; second, cloansing and rinsing the stomach with hot water and *medicinal peroxide of hydrogen, of Marchand*, continuing till it is well washed; third, food and nourishing; fourth, *medicinal peroxide of hydrogen of 4 per cent. strength* given in cupful doses at intervals of two hours during the sickness till convalescence; fifth, meet the requirements as they come up, as would be done in any other grave disease, using whatever personal experience has taught us to believe is good. Cleanse the bowels, wash the stomach, feed the sick, keep them warm if cold, and reduce excessive heat by the cool bath rather than reliance upon drugs; using anything in an emergency that is the easiest and most acces-

sible to procure. The cholera patient may be convalescent inside of the first few days, or if not convalescent and not dead, the case goes into the typhoid state, after which convalescence may be deferred for several weeks or death may be the conclusion. The temperature prior to the fifth day is generally subnormal or a little above, but on the fifth day marked exacerbation and elevation of temperature indicates the typhoid condition.

THE CHAIRMAN: It is a most fortunate circumstance that we are alive to-day. We must all of us feel confident that we have passed from the old to the new dispensation, which cannot but strengthen our faith like the anchor cast within the vale. We know what cholera is; we know that we can limit its spread in our city. This is great confidence, and it will do much for the comfort of this community. This idea should be spread throughout the length and breadth of this great city.

Treatment of Obesity and Fatty Degeneration.

BY G. H. THOMPSON, A. M., M. D.

PROF. MATERIA MEDICA ST. LOUIS COLLEGE OF PHYSICIANS
AND SURGEONS.

It is not necessary to enter into a discussion of what constitutes fatty degeneration, suffice it to say that this condition generally co-exists with a tendency to general obesity or results from the abuse of alcoholics. Those having a tendency to general obesity, are usually partial also to diets rich in sugar and starches, and small amounts of carbo-hydrates added to such diet, greatly favors the deposition of fat. The hereditary tendency to accumulation of fat, in my experience, usually manifests itself in males at the age of thirty, sometimes earlier, sometimes later. In females usually at about twenty-eight. As long as fat serves its functions only—that of adding rotundity to the form and serving as food supply—in times of sickness there is no necessity of seeking to elimin-

ate it. It is, when it accumulates persistently, causing distress by its weight and interference with locomotion, or when internal viscera become so degenerated by substitution of fat for normal organic tissue, that distress is caused or life threatened, that we should seek to correct the effects.

The members of the medical profession doubtless have their own ideas as to whether relief should be given on purely cosmetic grounds or not, and it is not my intention to discuss this subject from such a standpoint. The question is, how can necessary relief be afforded? In endeavoring to throw some light on this question, I take occasion to report a few cases.

Case 1. Mrs. E., aet. 28, weight 139 pounds, height 5 ft.; complained that she suffered from heat. For two years she has been unable to stand the moderate summer elevations of temperature without great inconvenience. Perspired so freely that she was obliged to remain indoors most of the time between June and September on account of ruining her clothes with perspiration. No female or other trouble was present, but she seemed to have a superabundance of adipose tissue generally distributed, especially about the chest and abdomen. Habits regular, bowels and courses likewise. Concluded to see the effect of reducing her weight, and for this purpose, after trying *Fucus Vesiculus* in the dose of one to two drams of the fluid extract three times a day, with some slight benefit, I determined to try *Phytolacca Decandra*, which has been recommended by Dr. M. M. Griffith, as a potent measure in diminishing obesity. The preparation used was Phytoline (Walker), a remedy prepared from the active principle of the *Phytolacca Berries*, after being somewhat frost-bitten. The dose first used was gtt. x. v. four times a day. The patient used two bottles, after which she reported herself feeling very much improved, perspiration lessened, weight 128 pounds, appetite about the same, regular bowels and courses. I could find no bad effects from the remedy.

Case 2. H. W. M., aet. 33, weight 160 pounds, height 5 ft. 6 inches; complained of praecordial distress, difficult breathing, occasional attacks of vertigo, heart-beat feeble, irregular and slow, sometimes rapid, anæmia, weakness in the legs, which were not very muscular. Patient was addicted to alcoholics, suffered consequently from dyspepsia and atony of the bowels. Diagnosis: fatty degeneration of the heart due to alcoholism. Stopped his alcoholics, administered stomachic tonic of quinine, strychnine and capsicum, and gave Phytolacca (Phytoline-Walker) in the dose of gtt. x. six times a day, before and after each meal. In three weeks' time there was a notable improvement in every respect. Weight had decreased five pounds, heart-beat fuller and more regular, praecordial distress and difficult breathing ceased altogether, digestion improved, appetite likewise. Patient was on the road to recovery when persistent exposure to extreme cold brought on pneumonia, from which he died after five days' illness.

In these two cases there was no advice given as to diet except the withdrawal of alcoholics in the last case, it also being remembered that alcoholics antagonize the action of Phytolacca.

Case 3. Mr. N., aet. 54, weight 240 pounds, height 5 ft. 10 in.; complained of eczema of legs and left side. Inspection showed in the left hypochondrium a large circumscribed ulceration about two inches in diameter, surrounded by inflamed vesicular area; the legs showed similar ulceration in the skin. Patient perspired freely, almost to a point of hyperidrosis. During cold weather patient was not troubled except from difficult locomotion and occasional attacks of rheumatism. Examination of urine showed no sugar. Appetite fair, drank considerable beer, bowels regular. Astringent salves and lotions cured temporarily. Diagnosed eczema, due to ulceration. Placed patient on Phytolacca (Phytoline-Walker's), gtt. x. x. v. before and after each meal. In two weeks patient lost ten pounds, had somewhat less appetite, less perspiration, sores took on a healthier condition,

and after continuing the treatment about two months and a half, patient felt as well as ever, and tipped the beam at 200. Since then the patient has gained but little if any, perspires normally and has no return of his eczema and no recurrence of rheumatism. How long this condition will last time alone can tell.

This last case was one especially calling for some fat-reducing agent and the checking of perspiration. In this case bread and potatoes were prohibited, likewise other form of starchy foods; beer was reduced in quantity two-thirds. These measures materially increased the fat-reducing properties of the Phytoline.

The next question is, how does Phytoline cause the reduction of fat? This, I am at present unable to say. I have, however, noticed that the fæces seemed to be considerably more rich in fatty materials than is normal, which condition cannot be attributed to indigestion, as in all other respects digestion was normal. Perspiration and urine was apparently unchanged by the action of the drug.

Officinal preparation of the root have been used with little or no result, except to cause continued nausea, vomiting and diarrhœa. Phytoline does not cause nausea in the ordinary dose, and though slight laxative effects have been observed from it, I have never seen a pronounced case of diarrhœa.

The appetite is sometimes slightly diminished chiefly in the morning. It seems to me to be specially indicated in all diseases characterized by fatty degeneration of internal viscera, especially of the heart and liver. Those who choose to use it for its cosmetic effects in reducing fat, will also find in it a serviceable adjunct to properly restricted diet and exercise.

Bromida.—T. H. J. Pryce, M. D., No. 4 Lorne Villas, Clevedon, Somerset, England, May 23d, 1891, writes: I take pleasure in giving the following notes on BROMIDA. A patient, age 28, suffering from Pneumonia and Typhoid Blood Poisoning (the latter was contracted when in the convalescent stage), complained of Insomnia, and I put him on BROMIDA. Even when in good health he had suffered more or less from Insomnia, but after having taken BROMIDA he slept without difficulty and very naturally, and no headache or constipation followed its use, as was the case when other narcotics were administered. I was very pleased with the results, and prescribe BROMIDA often now.

Analysis of Medical Examinations Conducted by the New York State Examining Boards, from September, 1891, to July 31st, 1893, Showing the Percentages of Failures in Connection with the Length of Time Since Graduation.

COMPILED BY H. M. PAINE, M. D., OF ALBANY, N. Y.

The statement has been repeatedly made that the provision of the New York medical law, requiring **all** practitioners, those of long experience as well as recent graduates, to pass an examination before entering upon practice in that State, was one that while reasonably applicable to recent graduates, would prove an insuperable barrier to the admission of older practitioners, and would thereby work an injustice to a class well qualified for usefulness, although deficient perhaps in the technics of medical literature.

In order to obtain reliable data bearing on this point, the following tabulation, compiled from the official records preserved in the office of the regents, has been carefully prepared.

This analysis shows very clearly that the examinations of the older practitioners compare very favorably with those of recent graduates; and demonstrate as forcibly as such percentages for so short a period can, that physicians of ability and of years of practical experience, provided their preliminary educational qualifications are first approved by the regents, need not hesitate to make application for the New York State license.

Whole number of applicants,	-	-	-	397
Number, date of graduation not given,	-	-	-	39
Number examined during the year of graduation,	-	-	-	268
Number of practitioners of one year,	-	-	-	32
“ “ two “	-	-	-	12
“ “ three “	-	-	-	7
“ “ four “	-	-	-	9
“ “ five “	-	-	-	3

Number of practitioners of six years,	-	4
“ “ seven “	-	5
“ “ eight “	-	3
“ “ ten “	-	2
“ “ eleven years	-	1
“ “ twelve “	-	1
“ “ thirteen “	-	5
“ “ fifteen “	-	1
“ “ nineteen “	-	2
“ “ twenty-three years,		1
“ “ twenty-four “		1
“ “ thirty-three “		1

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Of the 268 applicants of the year of graduation, 21 (7.2 per cent) were not licensed.

Of the 32 one year applicants, 2 (6.2 per cent) were not licensed.

Of the 12 two-year applicants, 2 (16.6 per cent) were not licensed.

Of the remaining 46 practitioners of from three to thirty-three years, five were failures, viz.: one each of four, thirteen, nineteen, twenty-four and thirty-three years, the ratio of failures being a trifle less than eleven (10.8) per cent.

Of twenty-three practitioners, one-half the foregoing number, of from three to six years, *one* failure only is reported, the percentage 4.3 being, in all probability, far below an ordinary average; while of the twenty-three remaining applicants, ranging from seven to thirty-three years, there were *four* failures, the percentage of 17. being, doubtless, too high. It would seem, therefore, that the general average of eleven or twelve per cent for the older practitioners is more nearly accurate.

Thirty-nine of the 398 candidates, after having filed their application papers at the regents' office, failed to present themselves for examination. Of these thirty-nine, twenty-six (two-thirds) were practitioners of three years or less, show-

ing that fear of failure on account of length of time since graduation had little or no influence as a bar thereto.

The numbers licensed and the numbers rejected by the different boards are as follows:

Old-school; total examinations, 323; number licensed, 297; the number rejected, 26, being 8 per cent.

Homœopathic; total examinations, 27; number licensed, 25; the number rejected, 2, being 7.4 per cent.

Eclectic; total examinations, 9; number licensed, 8; the number rejected, 1, being 11 per cent.

Estimating the probable rejection among those who made application but did not present themselves for examination at *eleven*, and adding thereto the *twenty-nine* actual rejections, it is found that during the two years of active work, the examining boards have been instrumental in preventing at least *forty* (10. per cent) incompetent practitioners from entering upon practise in this State.

And not only have these forty incompetent practitioners been actually excluded, but the thorough application of the preliminary educational requirements established by the regents, under the admirably constructed New York medical law, has proved a reasonably effective barrier to the ingress of large numbers of illiterate practitioners, the presence of whom would be no credit to the medical profession, and little if any benefit to the public.

Treatment of Boils by Boric Acid.—L'Union Medical quotes Allison as having obtained good results in cases of general furunculosis by the administration, for eight to ten days, of ten to fifteen grains of boric acid a day, divided into two doses. At the same time, four or five times a day, the inflamed areas were washed with a hot solution of boric acid in the strength of 4 per cent. Between the application of this lotion, compresses were applied to the diseased parts, which had been wet with the same solution. In this way he claimed to have been able to reduce the boils which had already formed, and to do much towards preventing the other outbreaks. By this means he thinks it possible to avoid surgical intervention.—*Occidental Medical Times*.

A Terrible Cholera Tragedy.—At Ashabad, Turkestan, the cholera had almost disappeared early in August, and the event was celebrated with much rejoicing on the anniversary of the Emperor's name-day, which occurs in that month. The governor gave a dinner, to which he invited a numerous company, and the various regiments were granted extra rations, that they might rejoice on the occasion. The day, which began so auspiciously amidst general rejoicing, was destined to have an ending which has no parallel in history. Of the numerous guests who attended that dinner, one-half died within twenty-four hours. A military band of about fifty men who played during that fatal dinner lost forty of their number with cholera, and only ten of the men reached camp that night. One regiment lost half of its men and nine officers ere the sun rose the following morning, and within forty-eight hours 1,300 people died with cholera. The cause of this outbreak was clearly traced to a small stream of water which supplied the town. Four days previous the authorities were informed that cholera had broken out at a small Turkoman village situated on the banks of this stream, about four miles above Ashabad. The inhabitants of this village were ordered to move their kilrtkas (tents) several miles back on the hills, which they did. On the day previous to the reappearance of the cholera at Ashabad a very heavy rainstorm had occurred, which washed the banks of the river and swept refuse and other matter from the abandoned village into the stream, and this matter was carried by the water into the city and distributed to all parts of the town by the numerous open canals through which the inhabitants were supplied with water. It was this contaminated water which caused the reappearance of the epidemic and the frightful mortality which followed. The population of Ashabad was not more than 13,000, of which 10 per cent. died within forty-eight hours.—Report of U. S. Consul Heenan, September 9, 1892.—*The Sanitary Era*.

Hydrogen Peroxide in the Treatment of Carbuncle.—Golden (*Medical Record*, February 25, 1893) reports a case in which hydrogen dioxide was employed in the treatment of carbuncle. Parenchymatous injections (with an ordinary hypodermic syringe) of the peroxide (M. xxv., xxx.) were made twice a day. In from six to eight hours new openings formed, giving exit to considerable quantities of liquified core and relieving tension. The writer thinks the new drain channels due to the evolution of gas (due to oxidation within the core) which was forced through the points of least resistance. It is, in the writer's opinion, superior to carbolic acid and "a very useful agent in the treatment of this troublesome affection."—*Buffalo Med. and Surg. Jour.*

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Pan-American Medical Congress.

The Pan-American Medical Congress, which meets in Washington, Sept. 5th to the 8th inclusive, should command a good attendance from this portion of the country. It will be an exceedingly interesting meeting in many respects, being in charge of such men as Dr. William Pepper, of Philadelphia, as President, and Dr. Chas. A. L. Reed, of Cincinnati, as Sect. General, which cannot fail to make it a profitable meeting from a scientific standpoint. President Cleveland has invited all of the American governments to send delegates. The Congress will be opened by the President, in person, and promises to be largely attended. Nearly every one of the prominent states of South and Central America, Canada and the West Indies have appointed delegates. Over one hundred delegates have been appointed by the governors of the various states of the United States, also a large number have been appointed by the Boards of Health of the strictly American cities. The list of papers to be presented, in the different sections, are of a high class, and will cover the field of medicine and surgery very thoroughly. A very prominent subject for discussion, in the section of which Surgeon Gen'l Sternberg is the president, will be that of gun-shot wounds of the abdomen. There will also be a thorough exhibition of the specimens found in the Army Medical Museum.

The Sanitary Conference will occur in connection with the proceedings of the section on Marine Hygiene and Quarantine, under the presidency of Surgeon Gen'l Wymen of the United States Marine Hospital Service, and the section on Hygiene under the presidency of Dr. A. Gihon, Medical Director of the United States Navy.

ANNOTATIONS.

Bi-carbonate of Soda and Digestion.—Linossier and Lemonia in a communication to the Academy of Medicine, conclude that bi-carbonate of soda, in all doses, excites gastric sensation. According to their observations, the dose which produces the most powerful effect, is one of five grammes, given an hour before a meal. The action is prolonged beyond the day of administration, an increased action being kept up. It is essential that the medicine be used in case of insufficient gastric sensation, and it ought to be given some time before a meal. In cases of excessive acidity, it only acts as a palliative, and there is a risk of its aggravating the condition. They suppose that the administration of hydrochloric acid is of more service in diminishing the excess of secretion just in the same way that alcohol retards alcoholic fermentation, or lactic acid, lactic acid fermentation.—*Occidental Medical Times.*

What is an Expert.—The Supreme Court of Illinois gives a definition of a medical expert, which is so matter-of-fact that we take pleasure in reproducing it for the benefit of our readers. (The Brooklyn Medical Journal). The court says: "A practicing physician who is shown to be a graduate of a regular college and to have practiced his profession for many years, is competent to give his opinion upon a hypothetical question, setting forth the symptoms of a diseased person, whether the death was from the effects of arsenical poisoning, although he may not be shown to have had any case of such poisoning. A medical witness, in giving his opinion as a medical expert, is not confined to opinions derived from his own observation and experience, but may give an opinion based upon information derived from medical books."—*Medical Review.*

A Mosquito Exterminator.—The Indian Medical Record of March 16th says that a Bombay newspaper calls attention of the virtues of the castor-oil plant as a means of protection against

mosquitoes. In Egypt it is planted about houses to drive insects away. In towns, a better plan is to have young plants in pots, and bring them into the house for a day or two at a time, but they must not be kept too long in the shade, for the *Palma Christi* is a sun loving plant. A writer is cited as saying that the mosquitoes are killed by a poison they find on the lower side of the leaf, but it is stated, that, if a dozen leaves about a room that swarms with mosquitoes, they will disappear without leaving any dead ones lying about.—*N. Y. Medical Journal*.

Physiological Styptics.—In the *Lancet*, February 25, Dr. Wright writes as follows upon this theme: In the *British Medical Journal*, December 19, 1891, I suggested that the knowledge of the processes of coagulation, which had been acquired by research, might probably be turned to account in providing the surgeon with a physiological styptic. I pointed out that such a physiological styptic would be absolutely painless in application, since it would exert an elective influence on the blood, and would be inert with respect to every other tissue. It would thus differ altogether from our ordinary styptics, which owe their hæmostatic power solely to the formation of an eschar by the destruction of surrounding tissues. Escharotic styptics would appear to be anachronisms in a civilized system of therapeutics. In the communication referred to above I suggested for employment a styptic consisting of a "solution of fibrin ferment," which had received an addition of calcium chloride. I do not propose to add anything here to what I have already said in regard to this styptic, for I find that a styptic of much greater coagulative power can be prepared as follows:

Preparation of the Proposed Styptic.—Take the thymus gland (chest sweetbread) of a calf, reduce it to a fine pulp by passing it through a sausage machine, and extract with three or four litres of a 1 to 2 per 1000 solution of carbonate of soda which has received an addition of five grammes of chloroform per litre. Stir thoroughly at intervals and continue the extraction for twenty-four to thirty-six hours. At the expiration of that period it will be found that almost the entire substance of the gland has dissolved in the dilute alkaline fluid. Strain through fine calico and add 1 per cent. of calcium chloride; preserve in stoppered bottles. This styptic will keep for an indefinite time if the chloroform is prevented from evaporating. With a styptic prepared as above, I have been able to arrest the hemorrhage after cutting across both a femoral and

carotid artery in a dog. The action of the styptic was assisted by composing the arteries for one or two minutes.

Therapeutic employment of the above styptic.—The styptic may be applied on a tampon to any bleeding surface where strict asepsis can be dispensed with. If it is necessary to render the styptic perfectly aseptic, this can be done by boiling after making a sufficient addition of alkali to keep the albuminous substance in solution. Boiling involves a great, but not a complete, loss of coagulating power. In conclusion, I need not do more than merely advert to the fact, that the proposed styptic consists of a solution of Wooldridge's "tissue," or "cell-fibrinogen," with an appropriate addition of lime. If this styptic is found to be of practical utility, it is to be remembered that this is entirely due to the researches of Wooldridge in this country, and Arthus Pages in France.—*Maryland Medical Journal*.

The Incubation of Periods of the Infectious Diseases.

—The Clinical Society of London has recently published the result of extensive observations regarding the period of incubation of some of the infectious diseases. A constant period of incubation is not to be expected. In most instances it will be seen from the following table, that the difference in the maximum and minimum period is not very great. It seems remarkable, however, that a disease should show such extremes as typhoid fever:

		NORMAL.	MAXIMUM.	MINIMUM.
Variola	- -	12 days.	14 days.	9 days.
Varicella	-	14 "	19 "	13 "
Measles	- -	10 "	14 "	4 "
Rubella	- -	18 "	21 "	8 "
Scarlet fever	-	2 "	7 "	1 "
Influenza	- -	3 "	5 "	1 "
Diphtheria	-	2 "	7 "	2 "
Typhoid fever	-	12 "	23 "	5 "
Mumps	- -	19 "	25 "	12 "

It is a peculiar fact that the disease in which the period of incubation is shortest, are those in which the infection may persist the longest. The period of quarantine must be governed largely by the period of incubation, hence the subject is an important one for a variety of reasons. Dr. Dawson Williams commending upon these figures in the Medical Magazine of London for June, states

that the period of quarantine should be at least a day longer than the maximum for each disease.

This is a very uncertain rule, however, for the patient should be free from all signs of sickness, and especially from fever. The necessity for disinfection of clothing is shown by cases reported in which persons wearing garments which had been exposed to infection, have escaped, while others coming in contact with the same clothing, have contracted the disease. This is probably explained by great susceptibility of certain persons to particular diseases. The period of infection is very doubtful. It may be greatly prolonged by some complication. This is especially true of small-pox, diphtheria, typhoid fever and scarlet fever. The period during which a disease may be infectious can not be stated definitely. It varies with different cases and must be determined according to the nature of the symptoms and the character of the case. Measles, chicken-pox and mumps lose the direct power of infection very early, and the infective principal does not remain active for a long period in the room in which the patient has been ill. Measles, mumps and chicken-pox may be infectious in the earliest stages before definite or characteristic symptoms appear. Small-pox, fortunately, is not actively contagious until the eruption has appeared. This statement, the committee affirms, has been proven by abundant observations.—*N. Y. Medical Journal*.

Medical Men as Witnesses.—"A remarkable law concerning the examination of medical men as witnesses in negligence suits," says the New York Sun for July 14, "went into effect in this state at the beginning of this month. It relates to the testimony of physicians or surgeons who are attached to any hospital, dispensary or other charitable institution. Where such a man is required to testify in an action for the recovery of damages for personal injuries, in respect of information which he acquired in attending a patient at the particular institution to which he is attached, the new statute required that the testimony shall be taken before a referee instead of being given in court before the judge and jury, as has always heretofore been the practice. However, the judge of the court in which the case is pending is empowered at any time, notwithstanding the fact that the deposition of the medical man was taken before the referee, to make an order requiring his examination upon the trial."

“The precise purpose of this change in legal procedure in reference to medical witnesses is not plain. Probably, however, the idea of the framer of the law was to relieve hospital surgeons and physicians from the burden of having to attend court at hours when it is inconvenient for them to leave their duties at these institutions. But it is to be noted that nothing is said in the statute about the place where the referee is to take the testimony, and it might well happen that it would be as difficult for a doctor to obey a summons to appear before a referee at his office as it would be to obey a similar summons to attend court.”

“One objection to the new practice contemplated by this statute, is, that it will compel juries, in many cases, so far as the evidence of doctors is concerned, to render their verdicts upon depositions which are read to them, instead of upon the oral testimony of witnesses given in open court. The appearance of witness, his demeanor and his manner of testifying always afford the utmost aid to an intelligent jury, in passing upon the credibility and the weight which ought to be given to his testimony; and it is a serious matter to withhold this aid, and to substitute evidence which is read by a lawyer from a written or printed document for the evidence of the witness given by his own word of mouth in the presence of the court. As has well been said by an eminent judge, “all witnesses look alike in print.”

We suppose it may be argued in support of this enactment, that physicians and surgeons ought not to be called away from important cases where life is at stake, in order to dance attendance in the courts, oftentimes unnecessarily by reason of the repeated postponements of trials. No doubt there is force in this suggestion, but we think it will be found upon inquiry that our courts are very indulgent toward physicians whose engagements render it difficult for them to attend at any particular time, and that adjournments are often granted, and testimony is frequently taken out of order so as to enable doctors to appear as witnesses, without detriment to their practice.

“But, if it be true that medical men require the protection of such a statute, why is it confined in its operation to such of them only, as are connected with hospitals, dispensaries and charitable institutions? It would seem that these doctors are the very ones who could most easily obtain assistance and find others to take their places in case of an enforced attendance in court, while the

private practitioner, who has no hospital work might find it very difficult at short notice to procure the aid of another physician or surgeon to look after a critical case under his charge."—*N. Y. Medical Journal*.

Differentiation of the Typhoid Bacillus.—G. W. Fuller, State Bacteriologist, in his report to the Board of Health of Massachusetts, gives the result of his attempt to differentiate the bacillus of typhoid fever from other forms. A comparative study was systematically undertaken of more than thirty different species of bacteria found in the water of the Merrimac River, at Lawrence, side by side with culture of the typhoid bacillus. In the first place it became necessary to make a thorough investigation of the latter, and after prolonged investigation, it was found possible to separate it from all the forms hitherto encountered in the river water. The potato test, generally used to differentiate the typhoid bacillus from the *B. Coli Communis*, was found to be of no diagnostic value; while apparently unfailling tests of the former are the non-coagulation of sterilized milk into which the organism has been introduced, the non-formation or very slight formation of acid under similar circumstances, and the turbidity produced, without evolution of gas, when the bacilli are grown in Smith's solution of glucose, peptone and common salt.—*N. Y. Med. Times*.

Salophen, the New Remedy for Acute Rheumatism, is described by several writers as having given very satisfactory results in this condition without causing the gastric perturbations so commonly observed in active anti-rheumatics, and without inducing toxic phenomena of any kind. The doses administered varied from 45 to 120 grains daily, given fractionally from four to six times within ten or twelve hours. An advantage of the remedy, according to several observers, lies in the fact that it can, in all cases, be given in sufficient quantities to produce a useful effect. In cases in which very marked febrile symptoms occurred conjointly with the other phenomena, they came under control in from sixteen to thirty-six hours. Some practitioners used Salophen and Phenacetine in equal parts in those cases of articular rheumatism in which the pains were especially severe. The influence upon the inflammatory processes is described in all cases as having been well marked. In several instances, Salophen was given in powders with bicarbonate. Goldman's method of administration was, to give the remedy by itself on the tongue or in

tablets made with starch and sugar of milk. The chemical composition of Salophen being in fact a form of salicylic acid with a non-toxic combination of phenolic acid, would have lead any experienced practitioner to expect from this remedy the results which have recently been obtained. Of the value of Salophen in influenza there is already a considerable amount of evidence. For this combination it is often united to Phenacetine.

The Alumni Association of the Albany Medical College.

ITEM OF INTEREST OF THE CLASS OF 1864.

The following notice is copied from the *Northeast Philadelphian*, and it is earnestly hoped that all graduates of that year who may chance to see this will give a prompt reply to Dr. Bradner, enabling him to complete his duty as Historian in as thorough and complete a manner as he is noted for, when doing such work:

THE ALBANY MEDICAL COLLEGE, CLASS OF 1864.—If this notice should fall under the observation of any one interested in the Albany Medical College, we hope it will be read attentively, and we particularly commend it to any who were members of the dear old class of 1864; or, indeed, any one who may know the address or anything whatever concerning any member of the class. Most zealous effort will be made to communicate with and to get some word from every living member, and we already have reason to believe that not more than three or four are dead. The undersigned, one of the class, has been appointed Historian for the year 1864, and most cordially and earnestly invites each one of his classmates to write at once, communicating whatever he may have ready to say to the class, but don't wait to prepare anything, there will be ample time for that. It is very desirable that we have your sure and proper address now, that important communications may not be missent. We shall then take great pleasure in writing fully to each one, and have no hesitation in promising, even now, that with your co-operation we will have something by next commencement time that will bring some happiness to each one of us, whether present or absent. Therefore, brothers, without the least delay, please send your address to

N. ROE BRADNER, M. D.,
Wissinoming, Philadelphia, Pa.

Treatment of Sciatica by Acupuncture.—The results on discharge from the Devonshire Hospital of 100 consecutive cases of sciatica treated by acupuncture, are as follows: 56 per cent. were cured, 32 per cent. were much improved, 10 per cent. were improved and 2 per cent. there was no change. Acupuncture, I consider very valuable. Dr. Gowers states: "Simple acupuncture along the course of the nerve has been recommended; it gives temporary relief, as does any superficial pain, but the cases are few in which it has any permanent effect." I presume he must refer to cutaneous acupuncture, and not to acupuncture of the nerve itself, which was the method employed in these cases. The patient can always tell when the nerve has been pierced, by pains shooting down the leg. The needle ought not to be left in situ for any length of time, but withdrawn immediately, as unless this is done, severe pain is often caused on their withdrawal, and no better results seem to follow this line of treatment. A single spear-pointed needle two and a half inches long is all that is required, as the depth of tissue to be pierced can be regulated according to the situation and development of the patient. If the nerve is not pierced on the first introduction of the needle, it can be partially withdrawn and entered again at a somewhat different angle, and in this way the nerve may be pierced in several different places, but with one cutaneous puncture. The nerve should be pierced five times over the parts where there is pain or pressure. The external popliteal nerve to the inner edge of the biceps tendon may also be pierced if it is painful, and as it is not covered by muscles, this can be easily done. The musculo-cutaneous nerve may be punctured along the whole of its course, but being of small size and lying deeply, it is naturally more difficult to pierce; but, even if the nerve is missed, the needle, passing in close proximity, must exert counter-irritation. These cases, without exception, I consider was due to an inflammation of the nerve sheath, thus affecting primarily the adventitious tissues—a perineuritis and an interstitial neuritis respectively. This condition would account for the various symptoms, sensory and trophic, such as pain, tightening sensation, wasting of muscles supplied by the affected nerve, and also those supplied by the small sciatic, when the disease affects the lower portion of the sacral plexus.

Considering the pathology of sciatica, the treatment by acupuncture is a rational one, more especially in the earlier stages of

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The Present Position of the Bacteriological Diagnosis of Cholera.

BY PROF. R. KOCH,

Director of the Institute for the Study of Infectious Diseases, Berlin.

ABSTRACT FROM THE NORTH AMERICAN PRACTITIONER.

When I published the results of my researches on cholera bacilli and their relationship to cholera, my statement that these bacilli were only to be found in cases of cholera and that their presence might therefore serve as a means of diagnosis, met from the first with the most violent opposition. Among other arguments against my hypothesis, it has been alleged that bacilli identical in every respect with the cholera organism can be demonstrated in the buccal secretions of healthy individuals, in the water of localities absolutely free from cholera, in cases of cholera nostras, etc., but the inaccuracy of these assertions soon became evident. Since the date of my first communication on this subject it has been proved by the examination of thousands of cases during cholera epidemics in Italy, Spain and South America, and in the course of the last epidemic, that comma bacilli are constantly to be found in Asiatic cholera. It is now beyond doubt that comma bacilli are a constant feature of Asiatic cholera and that their presence is absolutely pathognomonic of this affection.

In hospitals, bacteriological examination should in the future be resorted to as a routine practice, even when there is no doubt as to the nature of the epidemic, if for nothing else than to prevent patients leaving the hospital before the bacilli

have disappeared from their motions, in which the organisms are apt to persist in a virulent form for a long time after the special choleraic symptoms have subsided. But it is in the beginning, and toward the end of an epidemic, when an accurate and rapid diagnosis and the adoption of prophylactic measures are questions of paramount importance, that bacteriological examination is apt to prove of the greatest service.

To be really of service, however, bacteriological diagnosis should be made with promptitude and accuracy, seeing that so rapid is the diffusion of cholera throughout a district, and its progress from one place to another, that a few days', nay, a single day's delay in the adoption of the necessary sanitary measures, may lead to an irremediable catastrophe. Moreover, it is highly desirable that the methods of bacteriological investigation should be improved so as to permit of the recognition of very mild cases of Asiatic cholera even in the almost complete absence of characteristic symptoms.

An experienced bacteriologist will usually complete the bacteriological examination of a case of cholera in two days by the old method. The necessity for far greater rapidity in bacteriological investigations, will, however, be readily appreciated. Hence, many bacteriologists have devoted special attention to the study of the subject with this object in view. As a result of these researches we are now in possession of various improved methods, the credit for the discovery of which it is not always easy to apportion, so large is the number of those who joined in the work.

From the foregoing it would appear that the question of the bacteriological diagnosis of cholera is not yet definitely settled. My object in endeavoring to give a brief account of the present stage of the question, is to describe the various improvements, as yet very imperfectly known, which have recently been introduced in bacteriological methods. I consider that it is highly desirable that the medical profession should become acquainted, without delay, with the advances which have been made in that direction, in order that the knowledge thus acquired should be brought to bear in the coming struggle with cholera.

For the sake of brevity, I shall pass over in silence those processes which experience has shown to be unnecessary or defective. I do not propose to enter into a detailed history of the present methods, but I shall confine myself to a description of the procedure employed at present at the Berlin Institute for Study of Infectious Diseases.

This comprises a series of processes, viz., microscopical examination, culture experiments on peptone, plate cultures on gelatine and on agar, the red (indol) reaction of cholera cultures with sulphuric acid, and experiments on animals.

I.

MICROSCOPICAL EXAMINATION.

This part of the investigation consists in examining cover-glass preparations obtained from the fæces and alvine discharges. For purposes of examination one should select the mucoid concretions found in the motions or in the intestines after death. The best staining reagent is Ziehl's dilute fuchsine solution.

According to the severity of the case and the stage of the attack, these slides show either pure—or nearly so—cultures of cholera bacilli or mixed cultures in which the specific organisms of cholera is found associated invariably with the organisms habitually present in the intestine, especially the bacterium coli commune. In a few cases the preparation shows a complete absence of comma-shaped organisms.

In a preparation showing a pure culture, or one in which the bacterium coli commune is the only other organism present, the cholera bacilli appear in clusters which are especially characteristic where the mucus has been drawn out in filaments. This arrangement is peculiar inasmuch as the bacilli all point in the same direction and resemble a file of fishes swimming one behind another, in a slow stream of water. In my earlier researches on this subject I had already observed this peculiar arrangement of the cholera bacilli in the intestinal mucus. It is in fact so characteristic of cholera organisms, that it is in itself sufficient to justify the diagnosis of Asiatic cholera. In spite of the absence of this special feature, I believe that the

diagnosis is just as certain when the only organism found in the preparation is the bacterium coli commune mixed with a large number of bacilli presenting the characters of cholera organisms. The presence of other bacteria introduces an element of doubt in the diagnosis.

Microscopical examination will, however, only suffice as a means of diagnosis in the hands of experienced investigators, capable of recognizing the different kinds of bacteria more or less by their morphological appearances, a faculty which, to my own knowledge, is not possessed even by very distinguished bacteriologists. To rely on microscopical examination in the diagnosis of cholera, the student of bacteriology must first acquire experience by the careful study of numerous specimens prepared, as far as possible, by himself. He must also endeavor to train himself to recognize cholera bacilli at a glance, by the study of the morphological appearances of these organisms. When these conditions are fulfilled, microscopical examination is a most valuable means of investigation.

II.

CULTURES ON PEPTONE SOLUTIONS.

To a test tube containing a sterilized 1 per cent. solution of peptone, a few drops of choleraic dejections, or a small quantity of mucus from the stools, are added by means of a looped platinum wire. The tube is then kept at a temperature of 37 deg. C. Hesse has shown that cholera bacilli are essentially ærobie. They tend to rise to the surface of the solution where they are able to multiply, away from the disturbing influence of the other organisms normally present in the fæces. The latter remain, at any rate during the early stages of the process, in the deeper parts of the fluid. If as soon as some turbidity appears in the fluid a few drops of the peptone solution are taken from the surface with the platinum loop and examined under the microscope, the fluid is found to contain a pure culture of cholera bacilli, provided these organisms were present in sufficiently large numbers in the dejections or mucus originally employed. In cases in which the latter contain but few bacilli these take a longer time to

rise to the surface and they are then usually mixed in variable proportions with the ordinary intestinal organisms, especially with the bacterium coli commune. Under these circumstances a doubt may exist as to the real nature of the curved bacilli present in the preparation.

In any event peptone cultures are of great assistance in facilitating the search for, and the isolation of cholera organisms. Experiments performed at the Public Health Institute at Hamburg and at the Berlin Institute for the Study of Infectious Diseases, have shown that in certain mild cases of cholera in which the diagnosis is attended by considerable difficulty owing to the small number of specific organisms present, positive results may be obtained by means of peptone cultures where plate cultures entirely fail. This is probably due to the fact that on gelatine plates the organisms of cholera are overcome by the saprophytic bacteria present from which they cannot escape as they do in peptone solution. In consequence the development of the cholera bacilli is interfered with and their presence is obscured. In fact the peptone cultures have proved such a distinct advance on plate cultivations that I now regard them as an absolutely indispensable adjunct to all bacteriological investigations; but I repeat, they only afford positive evidence in cases in which the surface of the fluid yields a pure culture of the organism in question. The most suitable time for the examination of the peptone culture is between six and twelve hours after inoculation. In some cases, however, a longer period of time must be allowed to elapse. A few drops of the fluid must be examined at intervals so as to ascertain the exact moment at which the cholera culture reaches its maximum development.

I may add that from our own experience at the Institute for the Study of Infectious Diseases, the quantity of chloride of sodium in the peptone solution may advantageously be increased to 1 per cent, and the solution should be rendered alkaline if it is not naturally so. The peptones of commerce are not all suitable for purposes of experiment. At the Institute we employ that prepared by Witt (Rostock) in preference

to the others. These commercial peptones do not all contain the same quantity of alkali, hence the quantity of carbonate of soda which must be added to render any given sample alkaline varies in different cases. It has to be experimentally determined in each individual case.

III.

CULTURES ON GELATINE PLATES.

The appearances of cholera colonies on gelatine plates are so characteristic, especially if the cholera bacilli predominate over the other bacteria present or if the plate consists of a pure culture, that this method of investigation cannot be dispensed with in bacteriological work although it is less delicate than the peptone cultures. The plate and peptone cultivations confirm and complete each other. Cholera bacilli multiply rapidly in the peptone solution and in the course of a few hours they are present in sufficiently large numbers to permit of their being successfully inoculated on gelatine plates, while direct culture experiments on plates with the dejecta would give negative results or only a few isolated cultures.

The technique of plate cultivations on gelatine has remained the same since they were first introduced in bacteriology. Three solutions of gelatine are prepared according to the ordinary way described in all text-books of bacteriology, and poured into covered glass dishes. The higher the temperature, the more rapid the development of the colonies on the plates. In order, therefore, to accelerate the process as much as possible, the plates should be exposed to the highest temperature consistent with slow liquefaction of the gelatine by the organism, otherwise the colonies lose their characteristic appearance. This temperature is about 22 deg. C. for a properly prepared solution of gelatine. Under these conditions the plates show characteristic colonies at the end of fifteen or twenty hours. The gelatine liquifies and the colonies break up when the temperature rises above 22 deg. C. it is essential, therefore, that the plates should be kept in a self-regulating incubator kept at 22 deg., in which the variations

of temperature never exceed half a degree above or below 22 deg. When the cultures are kept at a higher temperature or when an inferior gelatine solution fusing at 22 deg. is used, the cholera colonies rapidly liquefy the medium of culture and they then come to resemble Finkler's spirillum. Inexperienced investigators are apt under these circumstances to mistake cholera bacilli for Finkler's organism, a mistake which was repeatedly made in the course of last year's epidemic.

IV.

CULTURES ON AGAR PLATES.

These are obtained by a method of procedure which is simply a modification of the method of cultivation on gelatine plates, but they differ from gelatine cultures in several important particulars. The appearance of cholera colonies on agar are not so characteristic as on gelatine and other evidence beside the external characters of the colonies must be obtained before a diagnosis is arrived at. It is usually possible, for a practiced observer to recognize with tolerable certainty the cholera colonies on agar from those of the organisms commonly found in water and fæces. Cholera bacilli grown on agar form medium-sized transparent colonies, of a peculiar brownish-gray color. The diagnosis should in any case be confirmed by microscopical examination. Agar cultures present the great advantage that they can be exposed to a high temperature (37 deg. C.) with the result that eight or ten hours afterwards the plate shows a sufficiently large number of colonies to permit of further investigations. In order to obtain this object, however, it is necessary that the colonies should develop on the surface of the agar, for they grow but very slowly in the depth of the nutrient medium, where they never reach any considerable size. Hence the fluid containing the bacilli should not be mixed with the fused agar as in the case of gelatine cultures, but the solidified agar is to be inoculated on the surface with the help of a platinum loop. In the process of setting, the surface of the agar becomes covered with a film of water which is apt to interfere with the

development of isolated colonies. The agar should, therefore, be kept for a few days in the incubator until the fluid has entirely evaporated. After inoculation the plates are kept in an incubator at a constant temperature of 37 or 38 degrees C. It is not easy to distinguish isolated colonies of cholera bacilli on agar from those of other organisms, but when present in large numbers cholera colonies are much more readily recognized. For these reasons agar cultures are not well adapted for purposes of experiment when the fluid to be experimented with contains but few cholera organisms. On the other hand, they constitute an extremely valuable means of investigation when the bacilli have multiplied for from six to ten hours in peptone solution. Agar plates inoculated with the peptone culture yield, after another period of from six to ten hours, a comparatively large number of pure colonies. These agar cultures may, after microscopical examination, be utilized either to inoculate fresh peptone tubes, which very soon give the red cholera reaction, or for experiments on animals whenever they are sufficiently abundant for that purpose.

V.

RED CHOLERA REACTION.

This (indol) reaction was discovered almost simultaneously by Bujwid and Dunham. It consists of the formation of a red coloration on the addition of sulphuric acid to cholera cultures which always contain a certain quantity of indol and nitrous acid. Indol is likewise produced by other bacteria, while a third group of organisms are capable of reducing nitric to nitrous acid. It is certain, however, that this double property is not possessed by any of the known species of comma-shaped organisms, capable morphologically of being confounded with cholera bacilli. In consequence they do not yield the characteristic red reaction on the addition of sulphuric acid. We are justified, therefore, in attaching the greatest importance to this reaction as a means of distinguishing between cholera bacilli and other alleged species. The reaction is not conclusive unless the following rules are attended to:

In the first instance care should be taken to select a good preparation of peptone, for all peptones are not well equally adapted for this test. The variations observed are probably due, as was pointed out by Bleisch, to a difference in the quantity of nitrates present. The delicacy of the reaction can therefore be increased by raising or lowering the proportion of nitrates in the peptone solution, as was suggested by Bleisch. It is also essential that the sulphuric acid should be free from all trace of nitric acid. Moreover, success depends on a third condition, viz., the cultures of cholera bacilli employed should be absolutely pure, for with mixed cultures the result remains open to the objection that the indol and nitrous acids which gave the characteristic red coloration were the products of the secretion of other organisms than those of cholera.

Cholera cultures in broth never give, even in the presence of peptone, a very distinct and uniform reaction. Hence, the test should only be performed with pure cultures of the bacilli in sterilized peptone solution.

VI.

EXPERIMENTS ON ANIMALS.

It has long been known that cultures of cholera bacilli introduced in the peritoneal cavity of guinea-pigs produce a toxic effect on these animals. R. Pfeiffer was the first to prove that the cholera virus is contained in the bacilli themselves and that constant and definite results are only obtainable with cultures of cholera organisms on agar, the injection of fluid cultivations being less satisfactory.

Pfeiffer's method of inoculation consists in taking with a looped wire about fifteen decimilligrammes (as much as the loop can hold) of cholera culture from the surface of the agar. This is diluted in about a cubic centimeter of broth and injected into the peritoneal cavity. The operator should be careful to inject the fluid into the peritoneum and not into the intestine, the needle being sometimes pushed through the intestinal wall by inexperienced investigators. The size of the animal experimented upon exerts an important influence

on the results of the experiment, for to cause death the dose must be increased in proportion to the size of the animal.

The quantity of cholera culture which can be held in the loop of a platinum wire is usually a fatal dose for a guinea-pig weighing from three hundred to three hundred and fifty grammes. The experiment is always successful in the hands of a skillful operator. Soon after the injection the phenomena of intoxication described by Pfeiffer make their appearance, prominent among these being a fall of the temperature, culminating rapidly in death.

A few agar colonies are sufficient for the experiment. Hence the advantages of the rapid growth of cholera organisms on this medium of culture.

VII.

By means of the various methods of investigation above described, we are enabled in every case rapidly to form an accurate opinion of the exact nature of the disease. The secret of success resides in their rational application, that is to say, in combining them so as to obtain the maximum amount of information therefrom. They may with advantage be substituted for the older methods of cultivation on potatoes, in gelatine tubes, etc., which may now be dispensed with.

The following plan will be found the most convenient for conducting the bacteriological investigations in suspected cases of cholera:

(1) The first step in the process consists in the preparation and examination of cover-glass specimens. The preparations are best made with the mucoid concretions from the intestinal discharges, which yield excellent specimens. Should they show the characteristic arrangement of cholera bacilli on a pure culture of these organisms—which is observed in about fifty per cent. of the cases—it may be safely asserted that the disease is Asiatic cholera.

To confirm the diagnosis, the organism is cultivated simultaneously on peptone and on gelatine. After inoculation, the gelatine plates and peptone tubes are kept in the incubator at a temperature of 22 deg. and 37 deg. C. respectively. It is

essential, therefore, that the laboratory should be provided with two incubators. At the end of eight hours, pure peptone cultures of cholera organisms are obtained, which give the indol reaction. After twenty hours the gelatine plates show characteristic cholera colonies.

(2) When the microscopical appearances are not sufficiently characteristic to permit of a definite diagnosis, culture experiments on gelatine and peptone and, if possible, on agar should be made without delay. The gelatine plates are kept at a temperature of 22 deg. and the peptone tubes at 37 deg. The peptone cultures are examined under the microscope six hours after inoculation, the examination being repeated at intervals. As soon as the fluid is found to contain comma-shaped organisms fresh inoculations are made on agar plates with the peptone culture so as to ensure the rapid multiplication of the cholera bacilli. The desired result is usually obtained in about ten hours. The diagnosis is then confirmed by the red indol test, a peptone culture obtained from the agar, or on gelatine plates, being the most convenient for this purpose.

(3) It sometimes happens that the comma organisms develop but slowly and in small numbers in the peptone tubes while the gelatine plates only show a few isolated colonies, if any. In these cases the ultimate results will depend on the agar cultures, for even under these circumstances the agar plates may present a number of suspicious colonies. They should at once be transferred to fresh agar and gelatine plates and peptone tubes. The cultures thus obtained should be submitted to the sulphuric acid test as soon as possible. They should also be utilized for purposes of experiments on animals, such experiments being absolutely essential for the diagnosis of doubtful cases. It is a wise proceeding to inoculate a number of fresh peptone tubes with the existing peptone cultures, in order to increase the stock of cholera bacilli for further investigations. Even in obscure cases which, as a matter of fact, are not very frequent, a diagnosis may be arrived at in two days at most.

It need scarcely be mentioned that the experiments must be repeated in cases in which the first investigations have given negative results.

VIII.

The bacteriological examination of water for cholera bacilli deserves special notice.

In the course of last year's epidemic, the water of infected localities was repeatedly examined but without success (with the exception of the cases reported by C. Fränkel and Lubarch) and that under circumstances which fully justified the suspicion that the water was contaminated. This failure to discover the specific bacilli was naturally brought forward as an argument against the special pathogenic action of those organisms by those who are opposed to the bacteriological theory of the nature of the disease.

The principal difficulty resides in the fact that the water contains numbers of other bacteria which interfere with the growth of cholera bacilli in artificial cultivations. This is especially the case when the water is extensively polluted by the admixture of sewage, excreta, etc., and this is precisely the kind of water with which we are most concerned. For these reasons the sample of water under examination had to be diluted with pure water in order, as far as possible, to separate the cholera organisms from the other bacteria present. The result was that only a very small portion of the original liquid was actually examined, a fact which precluded all possibility of success unless the fluid to be examined contained either an abundance of cholera bacilli or only a small number of other organisms, conditions which, I need scarcely say, are only very exceptionally met with. Hence, it was by mere chance that I succeeded in demonstrating the presence of cholera organisms in the water of a tank in India and in that of Dortmund harbor. The same may be said of Dr. Lubarch's discovery of these organisms in the bilge water of one of the Elbe steamers.

In consequence I endeavored to improve our methods of investigation so as no longer to rely on chance in our search for cholera organisms in water.

As already stated, water from whatever source very frequently, not to say invariably, contains comma-shaped organisms resembling cholera bacilli. These comma-shaped bacteria float in the upper layers of the peptone solution. Experienced bacteriologists have no difficulty whatever in recognizing these organisms from cholera bacilli by reason of their culture appearances on agar or gelatine. Moreover, they differ from the latter especially by giving no indol reaction on the addition of sulphuric acid and in the absence of all toxic action on guinea-pigs. They are very seldom found in the intestine of man and then probably only in small numbers. They cannot, therefore, in any way be said to complicate the bacteriological diagnosis of cholera.

The Pan-American Medical Congress.

BY ALBERT VANDER VEER, M. D.,

Professor of Surgery in the Albany Medical College.

The first Pan-American Medical Congress held in Washington, Sept. 5-8, 1893, can safely be said to have been a success. The attendance from all parts of the Western Hemisphere was gratifying. Mexico and Cuba were particularly well represented, and Hayti sent two colored representatives who were thoroughly up in their French, and who acquitted themselves with much credit. Great credit is due the local committee of arrangements for the very satisfactory manner in which the entertainments were conducted and provision made for the Congress. Beyond a doubt there were too many sections. There are many members of the profession who attend such a gathering, and who do not wish to spend their entire time in the section in which they may be registered, therefore it has seemed wise to reduce the number of sections, for the next Congress, allowing the members to come in closer contact in hearing papers and in discussing the same. The financial part of the Congress, owing to the liberal number of members of the United States who registered, has been conducted without any serious embarrassment to the financial executive

committee, but it is hoped that each member of the profession in this country will use their influence in seeing that the proceedings are promptly published by the government.

The meeting was opened by Bishop Paret reciting the Lord's Prayer and invoking the Divine blessing on the Congress, after which Dr. Pepper announced that the meeting would be formally opened by the President of the United States. Without waiting for the applause which greeted this announcement, to subside, Mr. Cleveland immediately stepped to the front and greeting the members of the Congress in his usual clear, distinct style. Dr. S. S. Adams, chairman of the local committee of arrangements, then introduced District Commissioner Ross, who welcomed the delegates on behalf of the city, in one of his usual happy speeches. After this speech the band played "Hail Columbia," and President Cleveland retired, escorted by Drs. Pepper and Adams, leaving the Congress to go on with its regular proceedings.

The first large delegation of physicians to reach Washington was on Saturday night, when a number of Mexican doctors came in over the Baltimore and Ohio Railroad. They made the trip from the City of Mexico to the National Capital in a few minutes less than five days, traveling in special cars over the Mexican National, the Iron Mountains, the Ohio & Mississippi and the Baltimore & Ohio Railroads. Among those composing the party were Dr. Carmony Vale, Dr. J. E. Monjaras, Dr. Domingo Owananos, Dr. J. R. Yeaza, Dr. M. Guitewezy Zavala, Dr. Gregoric Mendizabel, Dr. Angue Contreras, Dr. D. Contreras, Dr. Luis Munos, Dr. Eduardo Garcia, Dr. E. Liceaga, Dr. R. Lavista, Dr. J. Martinez del Campo, Dr. Y. Soloreo, Dr. Jose Ma de Ita, Dr. Francis Mavin, Dr. Fernanda, Dr. Angel Gavino and Dr. Fomas Noriega.

The officers of the Congress reached Washington the 4th, and registered at the Arlington. They were Dr. Wm. Pepper, President, Dr. Chas. A. L. Reed, Secretary, and Dr. Owen, Treasurer. To Dr. Reed is due the credit of the idea of forming such an organization. He, by resolution, originating it in the meeting of the American Medical Association three years

ago. President Harrison was empowered by Congress to extend invitations to the physicians of the two Americas to meet at Washrington at this time and consider a number of questions affecting the health of the countries of the Western Hemisphere. The following sections were pretty thoroughly well attended, especially the sections on hygiene and quarantine, which are working well together in the line of that most important and interesting subject, "the prevention of epidemic diseases." Dr. Gihon, who has proved himself a model presiding officer, was in the chair, and the following doctors read papers:—J. Cecil Phillippo, of Kingston, Jamaica, J. A. S. Grant, (Bey), the official physician of the Khedive of Egypt, Wolfred Nelson, Dr. Liceago, president of the board of health of Mexico, Dr. Homans, Dr. Orvanos, Mexico, Dr. Rouck, Dr. Shakespeare, Dr. Postley, etc. Some of the best scientific, practical work of the Congress was accomplished in this section.

Railway Surgeons:—There were not many railway surgeons representing the section on railway surgery, but the papers of the representatives of that section, made the convention a brilliant achievement. Two interesting papers were read by Dr. Jackson, of Kansas City, Mo., on "Uraemic Coma," with illustrations, and another paper entitled "the torsion of arteries for the arrest of hemorrhages," by Dr. J. H. Murdoch, of Pittsburgh, Pa.

General Medicine:—The more important discussions in this section, were on malaria, erysipelas and other ordinary diseases. The most important paper read in this section was by Capt. Louis A. La Garde, M. D., of Chicago, which had been looked forward to with interest. It treated of the subject, "Are projectiles from portable hand weapons sterilized by the act of firing, and can a septic bullet infect a gunshot wound?" The handling given the subject did not disappoint the assembled surgeons. Among the more important surgeons present at the meeting, were: Dr. Leonard B. Almy, Lieut. Col. and Med. Director, State of New York; Dr. John L. Heffron, surgical demonstrator, Syracuse University; Dr.

Chas. E. Doubleday, Penn Yan; Dr. J. U. Basket, Hannibal, Mo.; Dr. E. B. Montgomery, surgeon Illinois Soldiers and Sailors Home; Capt. Jose Clairance, surgeon Spanish Army; Dr. D. M. Guiteras, U. S. Navy; Capt. Chas. E. Woodruff, assistant surgeon U. S. Navy; Dr. Bedford Brown, Alexandria, and many others.

Gynecological Session:—There was a large attendance in this section, including many female doctors. Papers were read by the following members: Dr. Wm. C. Dabney, from Virginia; David Lobo, former lecturer on physiology at the Central University of Caracas, Venezuela, and Dr. W. F. Thayer of Baltimore, gave his experiences. Also at the opening session Sept. 5th, the following papers were read: "The value of certain methods of surgical treatment for chronic procidentia of the uterus," by Aug. P. Clarke, M. D., Cambridge, Mass.; "The intra uterine tampon," by Andrew F. Currier, M. D., New York City; "The relation of urinary conditions to gynecological surgery," by Chas. P. Noble, Philadelphia, Pa.; "Ectopic gestation," by Joseph Hoffman, Philadelphia, Pa.; "The treatment of extra-uterine pregnancy after the viability of the child, with report of two cases," by Jos. Taber Johnson, Washington, D. C.; "Observaciones sobre un Caso de preñez extra-uterina (Tubaria derecha) Operado en el hospital de San Salvador por el Dr. José Antonio Delgado," by J. Antonio Delgado, Guatemala City, Guatemala.

On Sept. 6th, "The technique of Coelio-Panhysterectomy," by Geo. M. Edebohls, New York; "Hysterectomy, indications and technique," by J. M. Baldy, Philadelphia, Pa.; "Notes pour l'histoire des fibromyomes uterins," by Nicholas San Juan, City of Mexico, Mexico; "Vaginal hysterectomy," by E. E. Montgomery, Philadelphia, Pa.; "Cavernous angioma of the uterus removed by vaginal hysterectomy, with specimen," by H. J. Boldt, New York; "Drainage of ovarian cysts where the adhesions are such that it is impossible to remove the sac," by Albert Vanderveer, Albany, N. Y.; "Post-operative sequelæ of pelvic and abdominal surgery," by Jos.

Price, Philadelphia, Pa.; "After-treatment of abdominal section," by L. S. McMurtry, Louisville, Ky.; "Estudio clinico sobre las heridas penetrantes del abdomen i pecho," by Juan Manuel Escalana, Caracas, Venezuela; "The present status of our knowledge of the pathology of pelvic inflammations, with special reference to the treatment of pelvic abscess," by R. B. Maury, Memphis, Tenn. Sept. 7th, "An inquiry into the ethiology of mental disturbances following operations upon the pelvic organs," by Geo. H. Rohé, Catonsville, Md.; "Report of 100 operations done for serious structural diseases of abdominal and pelvic organs of women," by I. S. Stone, Washington, D. C.; "Cura radical de las hernies," by Luis C. Maglioni, Buenos Ayres; "A last resort in the operative treatment of hernia," by Rob't T. Morris, New York. Joint discussions by the sections on therapeutics, surgery and gynecology on "The indications governing the employment of the various anæsthetics." Co-referees for section on gynecology and abdominal surgery, and E. E. Montgomery, Philadelphia, Pa,

Sept. 8th, "The dorsal decubitus after confinement and miscarriage in the most frequent cause of retrodeviation with fixation," by A. Lapthorn Smith, Montreal, Canada.

Section on Military Medicine and Surgery was very ably handled by Geo. M. Sternberg, M. D., Surgeon General, U. S. A. He presented a very excellent address, giving the results of statistics of various operations in the army since the war, making a comparison of the percentage of recoveries with the war of the Rebellion, touched upon the subject of erysipelas, interesting his audience very decidedly. There was a large attendance of army officers, and who entered very earnestly in the discussion of subjects presented. Two important papers were set down for presentation and discussion, but time was only allowed of one. The subject of this paper was "Laparotomy in gunshot wounds of the abdomen," by Prof. P. S. Conner, M. D., of Cincinnati. His paper was ably seconded in the discussion by several army surgeons present, and by Dr. Albert Vanderveer.

The Otologists:—Prof. Politzer, of Vienna, the most celebrated aurist of Europe, who has many pupils scattered about this country, read a paper on a peculiar form of labyrinthine deafness. He illustrated his paper by a great number of charcoal drawings and many exquisite microscopic slides.

Section on General and Orthopedic Surgery.—This was one of the largest attended and most interesting features of the Congress. So many good papers and discussions were presented in this section, that time and space will not allow us to go into the details of each.

Therapeutic Section.—There was a good attendance at this section, and the feature of the day was the discussion on “The value of the bath in the treatment of asthenic states, more particularly, typhoid fever.” Dr. D. D. Stewart, clinical lecturer on medicine in the Jefferson Medical College of Philadelphia, closed the meeting by the reading of a paper relative to the treatment of chronic gastric catarrh and allied conditions of lowered hydrochloric acidity.

Section on Pedagogy.—Every seat in the amphitheatre of the operating room at the Medical Department of Georgetown University was occupied. The subject of particular interest was a paper by Dr. Gustav Lincks, of Cincinnati, and a demonstration by him of the Caesarian section and the Porro operation. All the details of the operation were explained. Dr. J. Collins Warren, of Boston, Mass., president of the section, and professor of surgery in the Harvard Medical School, made a most excellent address, speaking in praise of the demonstrations which show the value of the new science of pedagogy in medicine.

Section of Ophthalmology:—The most interesting feature in this section was the demonstration by Dr. Wolf, professor of ophthalmology in the Royal Infirmary of Glasgow, of the operation of transplanting conjunctival flaps from the rabbit to the human subject. He used himself as a subject on which to operate, and after carefully dissecting the eye of the rabbit and detaching and cleaning the conjunctival flaps, the professor grafted the skin on the back of his hand. These flaps

are said to be especially adapted to cases of accident by burning, and the operation, so far as the using of the conjunctival flaps of a rabbit to supercede human flesh, has never been demonstrated in this country before, the professor's lecture is considered very valuable to the profession.

Anatomical Section.—In this section a number of anatomical specialists were present, including Drs. George W. West, D. S. Lamb, Rob't Reyburn and Dr. Frank Baker of Washington and Dr. L. S. Pilcher of Brooklyn.

Section on Laryngology.—Here the time was mainly taken up with a discussion of unnatural growths on the inner surface of the human breathing apparatus and the best means of removing the same.

Diseases of Children.—Two important papers were presented, one of them by Dr. Dearborn of Philadelphia, treating of the appearance of appendicitis in children. This provoked considerable discussion from those present, as to the methods of treatment and operation to be followed in this disease.

The medical exhibit of the Congress attracted many visitors, a large proportion of them from the laity, who were interested in seeing the materials and appliances whose ministrations they were liable at any time to be subjected to at the hands of their family physician. A number of the exhibiting firms were also exhibitors at the World's Fair, and the men in charge of exhibits have in several instances been recalled from Chicago to take charge, Among the many exhibitors was the Van Heusen Compress Heater and Sterilizer Company of this city.

The social element was not overlooked by any means, and our friends from Mexico, etc., were given a theatre party Monday night, several banquets were given by the different sections, and on Wednesday evening, September 6, the doctors forgot all germ and other theories, in attending a reception given at the spacious parlors of the Arlington. It was a notable gathering and unique in many respects. There were the Spanish-American delegates, distinguishable by their dark complexion and intensely black hair and eyes as well as

their suave manners and soft speech. From far Egypt came Bey Grant, with his scarlet fez and decorations, the last being worn by many of the delegates from foreign countries. Several fair señoritas, daughters of some of the Southern delegates graced the scene with their brunette beauty, and created intense regret in the many Americans who could not speak Spanish. The Government of the United States was well represented, many officers of the army and navy being present, and its Secretary of State and Mrs. Gresham receiving the guests. The full Marine Band under Prof. Fauciulli was stationed in the central parlor and especially delighted the Southern delegates by the rendition of such selections as "La Paloma," the "España" waltzes and the "Spanish serenade." Refreshments were served in the banquet hall, and from 9 until 11 o'clock conviviality reigned.

The final act of courtesy extended to the visiting physicians by the local committee of arrangements, before their long distance railway journey, was given Thursday, night, Sept. 7, in the form of a trip down the river. The big steamer Columbia was chartered from the Baltimore and Ohio road for the occasion, and carried about 900 members and friends of the convention. The Marine Band accompanied the party, a buffet supper was served on the boat, and altogether the trip was a very enjoyable one. President Cleveland received the delegates, their wives and daughters at the White House, Wednesday afternoon, September 6th, at five o'clock. The delegates were taken in a special train on Friday, P. M., to Chicago, intending to visit Baltimore, Philadelphia, Boston, New York and Detroit, also. The foreign delegation of the first Pan-American Medical Congress, with the members of their families and others, left Washington at 1:30 P. M., Saturday, Sept. 9th, for Baltimore. Leaving Baltimore they reached Philadelphia at 4:30 A. M. Sunday. The Philadelphia Physicians' Committee entertained them right royally; they then left for New Castle, Del., were met by the revenue Cutter Hamilton, under charge of Surgeon-Gen'l Wyman, and a visit was made to the Quarantine Station at Reedy Island. The delegates returned to Philadelphia Sunday evening, and

after dinner at the Hotel Lafayette, left for New York where they spent Monday. Monday evening at 9:15, the party left for Boston on the Fall River Line Steamer, Plymouth, arriving there at 9 A. M. Tuesday. From Boston they went to Saratoga, thence to Albany, Niagara Falls, Detroit, Toledo, Cincinnati and Chicago, arriving at the last named place at 9 A. M. Tuesday, Sept. 19th, when the excursion ended. Great credit and praise is due the press of Washington for the thorough and liberal manner in which they reported the proceedings of the Congress. The next meeting of the Pan-American Medical Congress will be held in the City of Mexico, by urgent invitation.

American Public Health Association.—The twenty-first annual meeting, which in connection with the World's Congress Auxiliary of the World's Columbian Exposition, will constitute an International Congress of Public Health, will be held at Chicago, Illinois, Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, October 9, 10 11, 12, 13, 14, 1893.

Medical Society of the State of New York.—The following business committee has been appointed by the president of this society, Dr. Bendell: Dr. Henry Flood, of Elmira; Dr. L. Bolton Bangs, of New York; Dr. Edward Clark, of Buffalo; to whom communications regarding papers for the next meeting of the society, in February, 1894, may be addressed.

Graduates Who Will Feel the Force of the Medical Examiners' Board.—There is always a considerable number of students in a medical college who are barely able to make their examinations, or who get through by "hook or crook," or by various other means. These are the men who are particularly undesirable as members of the medical fraternity. They never become shining lights, nor do they blend well with the rank and file. When they do get into the profession, they are the integers that make possible an affirmative answer to the question, "Is medicine a failure?" It is on this class particularly that the State examination exercise a deterrent effect.—*The Pittsburgh Medical Review.*

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ANNOTATIONS.

Danger of Vaginal Pessaries.—Dr. Neugebauer, of Warsaw, has published an exhaustive analytical monograph on this question so important in these days when gynecology is widely practiced by the surgeons and physicians as well as the specialist. Two hundred and forty-two cases of injury have been collected and analyzed, five more being added in an appendix. Tabulating the results Dr. Neugebauer presents the medical public with the following formidable statistical records: Twenty-three cases of perforation of rectum alone by the pessary; twenty cases of perforation of bladder alone; ten cases of perforation of the bladder and rectum, one case of ureteric fistula alone; one case of ureteric vesico-vaginal fistula; one case of urethral-vaginal fistula; two cases of perforation of Douglas' pouch (neither fatal); three cases of perforation of the vaginal walls, the extruded portion of the pessary lying in the pelvic connective tissues; and cases of entry of a vaginal pessary into the uterus.

As to the age, one patient was ninety years old; she wore a wooden pessary forty-five years. The youngest was nineteen. The time during which the pessary was worn (and often forgotten) is tabulated, the nonagenarian just mentioned heading the list; two other women wore their pessaries for forty years; and twenty, besides these three wore the instrument over twenty years. The toleration of the vagina is very varied in different individuals, even for the same kind of pessary; thus in some cases the pessary

became fixed, and tended to ulcerate into the vaginal walls within two or three months, whilst in others the appliance was worn over twenty years without causing any objective or subjective troubles. How fetor could have been absent in these tolerant cases it is hard to understand. We must remember that the same kind of pessary is not always introduced with the same skill, whilst other pessaries may be bad in principal or ill-made by the manufacturer, and lastly, the patient very frequently forgets that she wears a pessary, hence the share of blame which the introducer of the instrument should bear is not uniform.

When the person is not aware that the instrument has been inserted, as is often the case, the medical attendant must undoubtedly have shown great skill and gentleness in introducing it, but he may have taken sufficient pains to impress upon her memory the fact that the instrument has been introduced, and must not be worn for many months. This is the commonest cause of pessary accidents at the present time, for the art of introducing pessaries is readily acquired, experience is easily obtained, and the favorite pessaries are no longer barbarous instruments, whilst the patient may misunderstand such information as "I have passed a Hodge," or "you are wearing a Zwank," and go away with the belief that she is not wearing a pessary. As to the merits and disadvantages of the almost innumerable forms of pessary, we must refer the reader to Dr. Neugebauer's valuable paper. The moral is that the introduction of a vaginal pessary is a minor surgical proceeding, but if performed carelessly may lead to results in no sense "Minor," but on the contrary, very serious.
—*Medical and Surgical Reporter.*

A Physiological Styptic.—According to the London correspondent of the *Therapeutic Gazette*, Dr. A. E. Wright's new styptic is the outcome of consideration on the factors which determine coagulation. It occurred to him that the best way of controlling hemorrhage would be to imitate as closely as possible one of nature's own methods and produce natural coagulation in the blood. Now the addition of fibrin ferment to the blood is in itself sufficient to hasten its coagulation. We know, besides, that the coagulability of blood is dependent on the proportion of lime salts contained in it, blood absolutely deprived of these being uncoagulable. Combining these two ideas, Dr. Wright has prepared his styptic, which is a solution of fibrin ferment, together with

one per cent. of calcium chloride. The efficiency of this solution, when applied to severe wounds in animals, is, as the writer has himself seen, very remarkable; a small quantity applied with a swab of cotton wool being almost immediately sufficient to arrest the hemorrhage, which is ordinarily very profuse. The solution is prepared as follows: the blood of cattle or sheep is received direct into about three times its volume of water, is set aside to gelatinize for a few moments, and then thoroughly whipped with twigs. The fibrin thus obtained is gently washed, so as to free it from blood pigment, and then extracted for about twenty-four hours with five to ten volumes of water. To the filtered extract is then added one per cent of calcium chloride. The great advantage, beside its efficiency, is that the process of occlusion by a natural coagulum is one which is calculated to do least harm to surrounding tissues. The action of the styptic is perfectly selective, being exerted on nothing but the blood with which it is brought in contact. No other styptic so thoroughly fulfils this condition.—*N. Y. Medical Times*.

The Treatment of Diabetes by Pancreatic Juice.—Mansell Jones "Treatment of diabetes by Pancreatic Juice."—*Brit. Med. Jour.*, Jan. 7, 1893.

Mackenzie, (H.), "Treatment of diabetes by means of pancreatic juice."—*Brit. Med. Jour.*, Jan. 14, 1893.

Neville Wood, "Treatment of diabetes by pancreatic extract."—*Brit. Med. Jour.*, Jan. 14, 1893.

White, (W. Hale), "Treatment of diabetes mellitus by feeding on raw pancreas, and by the subcutaneous injection of liquor pancreaticus."—*Brit. Med. Jour.*, March 4, 1893.

In these papers cases are recorded, which have been treated by pancreatic juice or minced pancreas, etc., as indicated in the titles. They offer no real evidence, however, that this method of treatment is of any value, and from the results of experiments on animals one would scarcely expect any benefit from this treatment—at least from pancreas preparations given by mouth—since it does not appear that the absence of pancreatic juice in the intestinal canal is the cause of the diabetes which follows extirpation of the pancreas in dogs. The pancreatic duct has often been ligatured in animals and no diabetes has followed. Injections of pancreatic extract also have failed to be of service in the treatment of diabetes in the hands of continental observers.

It has been found by Minkowski, and also by Hedon, that if a portion of the pancreas be grafted under the skin of the abdominal wall, diabetes does not occur when the whole of the gland is removed from its normal position in the abdominal cavity. If a portion of the pancreas of one of the lower animals could be successfully grafted under the skin of the abdominal walls in case of pancreatic diabetes in man, possibly good results might follow.—*Med. Chronicle.*

The Prevalence of Cancer and its Increase.—In a communication to the Manchester Medical Society (Medical Chronicle, February, 1893), W. Roger Williams draws attention to the steady increase in the prevalence of cancer throughout the civilized world. His statistics are gathered chiefly from the records of Great Britain, and show that in England and Wales in 1838, the year after the passage of the Registration Act, 2,448 deaths were attributed to cancer, or 1 in 140 of the total mortality. In 1890 the deaths due to it numbered 19,443, being 1 in 28 of the total mortality. Thus the proportionate mortality from cancer now is five times greater than it was a half century ago. Williams estimates from the extent of its mortality and the average duration of the disease, that there cannot be fewer than 60,000 persons now suffering from cancer in England and Wales. The returns for Scotland exhibit a similar state of things, the proportion of deaths from cancer to the total mortality having increased from 1 to 35 in 1884 to 1 to 27 in 1889.

“In most civilized countries where statistical records have been kept similar increases have been observed. In Norway the cancer deaths increased from 32 per 1,000 of the total mortality in 1877 to 60 per 1,000 in 1886-87. In the Netherlands the increase was from 4.9 per 10,000 living in 1867-79 to 6.5 in 1884-85 and in Prussia from 3.1 in 1881 to 3.8 in 1887. Brussels is credited with an increase from 3.9 in 1864-73 to 4.2 in 1874-78, and in New York the rise was from 4 in 1875 to 5.3 in 1885.

“In all the above instances the augmented cancer mortality has coincided with progressive population, increased national wealth, and marked improvement in the general well-being. It seems to me impossible to regard these coincidences otherwise than as the result of cause and effect.

“It accords with his view that in Ireland—where the converse conditions have prevailed, viz., decrease of population and widespread poverty—the cancer death-rate has been much lower than

in either of the sister countries, and for many years it has shown no such marked increase as in the latter, but has often remained stationary or has even declined."

Interesting facts about the increasing cancer mortality of Great Britain are that it has affected males to a much greater extent than females, and that for both sexes the percentage of cancer deaths in persons above fifty-five years of age is greater than formerly, showing that the increased mortality is chiefly among persons of advanced age.—*The Am. Jour. Med. Science.*

How Cholera is Spread.—In the half-yearly report of sickness and mortality among the servants of the East Indian Railway Company, for the first half of the current year, an instructive instance of infection by cholera stools is recorded. Dr. Bathe reports that there can be no doubt that milk diluted with impure water was the cause of the outbreak of cholera last April among the European employes and their families stationed at Asansol. The milk supply was not equal to the demand, and the only water available for its dilution was procured by digging holes in the bed of a small river, at a spot where the excreta of several cholera patients had only a day or two previously been thrown. Almost all those who suffered from cholera had partaken of this milk. At Jamalpur, a native child, suffering from cholera, was seen by Dr. Brooks, lying on a bag full of rice, and the choleric dejecta were soaking through the gunny bag into the rice. Had this rice been sent on to some distant place where no cholera existed, and had cholera supervened on this rice being distributed and eaten, we might have been treated to various theories as to the origin of the epidemic; but it is very doubtful if the simple explanation of the choleraic dejecta of this child would have been hit on.—*Medical Record.*

The Quantity of Lochia.—At a meeting of the Obstetrical Society of London, held May 3d (British Medical Journal), Dr. E. Giles gave the result of investigation on the quantity of lochia after labor. The method employed was described, and sources of error discussed. The conclusion derived from observations on sixty cases were as follows: (1) the average normal quantity of lochia is about $10\frac{1}{2}$ ozs.; (2) the duration of the discharge is, on the average, nine or ten days; (3) the degree of "parity" does not influence the quantity; (4) non-suckling does not increase the discharge; (5) the quantity is generally greater in younger women

up to the age of twenty-five; (6) the weight of the child has a slight, and that of the placenta a well marked influence, the quantity increasing with the weight of the placenta; (7) the quantity increases with the amount of hemorrhage at the time of labor; (8) the lochia are more abundant in the case of those who habitually menstruate profusely; (9) the quantity is generally greater in the case of women of darker complexion.—*The Canadian Practitioner*.

To Regulate the Character of Patent Medicines.—The following bill was introduced into the New York State Legislature. It failed to pass but it is an effort in the right direction, and we print it in the hope that our readers may exercise their influence with the next set of legislators in order to secure some supervision of patent medicines.

Section 1. In addition to the powers now conferred by law upon the State Board of Health, said Board is hereby empowered, and it shall be its duty, upon receiving a fee therefor of \$50, to cause an examination and analysis to be made by practical chemist of any drug, medicine, or mixture of drugs, herbs or medicines, commonly known as patent or proprietary medicines, and shall ascertain and determine whether the use of the same may not endanger the public health; and it shall not be lawful for any person or persons or corporation, to sell or offer for sale any such drug, medicine or mixture not prescribed by a regular physician, unless the same shall have been so examined and approved and certified.—*Medical Record*.

A Successful Remedy in Treating Obesity.—By A. Sandford, M. D., Everett, Mass. For several years I have been on the look-out for some preparation which would reduce flesh without injuring the general health, but have never succeeded in finding one. Several weeks ago, however, I received a pamphlet, on the action of Phytoline (the active principle of the berries of *phytolacca Decandra*) in obesity and about that time a patient applied to me for a reduction in her weight. I prescribed Phytoline, and directed her to take ten drops before and after the three daily meals. She has now taken about two weeks treatment, and tells me to-day that she has lost fifteen pounds, and that too, without making any change in her diet, or affecting her general health. I am pleased with the results, and can conscientiously recommend it.—*Medical Brief*.

Sennine.—The advertisement of "The New American Antiseptic," appearing for the first time in this issue. A product of Phenol and Boracic Acid, the two best germicides known—in powder form (2 oz. tin boxes with inner top perforated convenient in applying on the wound surface) and readily soluble, five parts of Sennine dissolved in 100 parts of water. Comparatively inexpensive, non poisonous and free from disgusting odor, safe internally as well as externally, thus promising much in general medicine as well as in surgery. We bespeak an early trial of Sennine by our patrons. Free sample sent upon application to the Dios Chemical Co., St. Louis, Mo.

PERSONAL.

The faculty of the Albany Medical College are always delighted to hear of the success of its graduates, and all of the Alumni will be interested in the following:

Dr. Frank Burton, class of 1882, a student of the late Dr. John Swinburne, and who located in Minneapolis soon after his graduation, is having a most lucrative and extensive practice. He is very much appreciated by his patients, and much liked. He is connected with the Medical Department of the University of Minnesota, and doing well.

Dr. Wm. A. Hall, class of 1875, who was house surgeon for 18 months in the Albany Hospital, following his graduation, and who acquitted himself with signal ability, has made for himself a most excellent reputation at Minneapolis. He has a very large and successful practice, and is very nicely spoken of by his brother physicians, men who are his seniors, and who have watched his career carefully since locating in that active and progressive city. He has recently been appointed Prof. of the Principles of Surgery and Clinical Surgery in the Minneapolis College of Physicians and Surgeons, and is also attending surgeon to St. Mary's and St. Barnabas' Hospitals, besides holding several other important appointments in his profession.

Dr. W. W. Betts, class of 1883, who made for himself a very enviable reputation in his successful practice at Valatie, but who located in Minneapolis some five or six years since, has done thoroughly well there. He was, however, compelled, owing to ill health, to change his location, and is now at Salt Lake City, where his health has very decidedly improved during the past six months.

It is to be hoped that in time he will be restored to full health, and that he may go on in the practice of his profession, which he enjoys so greatly.

There are many of the older graduates of the College located at Minneapolis. Among the most successful ones can be mentioned Dr. Sam'l F. Hence, class of 1854, and Dr. Jas. F. Force, class of 1871, the latter now secretary and treasurer of the Northwestern Life Association.

Dr. Rob't S. McMurdy, class of 1846, and who has many friends living here in this city, who will remember him with much esteem and great respect.

Dr. Rensselaer Platner, class of 1846, is also located in Minneapolis. They all express much loyalty for their *Alma Mater*, are men kindly and well spoken of by their brother practitioners throughout the city.

Graduates of the College are to be met in many of the Western cities. You can scarcely talk with members of the profession, but we find them referring to some one who graduated at the Albany Medical College.

Dr. Edward F. Fish, class of 1879, now located at Miles City, Mon., is having the most successful practice of any physician in that vicinity. His ride not infrequently extends over 20 or 30 miles by carriage drive and horseback, and by railroad 150 to 250 miles, in consultation work. He is married, nicely situated, presents a picture of health, bears his hard work well and is enthusiastic in regard to the progress and activity of the city with which he is so closely identified.

Dr. Garrett L. Hogan, class of 1887, whose father resides at Ballston, and who has so many friends living here in this city, is doing a very extensive practice at Bozeman, Montana. He is leading surgeon in that section, doing a great many operations and having a large practice. His consultation work extends over a great territory. He married a few years ago, a lady of much wealth, is very nicely situated in his domestic life, much respected in society and has before him a very bright future.

Dr. Willard H. Fox, class of 1888, and who was considered one of the most faithful, energetic students of his time, has done just what was predicted for him, making a success of his professional work. After graduating he located for two years at Rochester, N. Y., being very successful in his professional life there. He

then moved to Tacoma, Washington, where he has succeeded in building up a practice creditable to his College, gathering about him a class of patients who are intensely loyal, who have not only great admiration for his professional work and skill, but admire him as a gentleman in every walk in life, as a loyal citizen and a man whom it is a pleasure to meet socially and professionally. This is hardly the place to note the many kind things one hears said about him. He is soon to be married to a lady living in Chicago. It is possible he may come East, but his professional work is so exacting that he will hardly be able to leave Tacoma for any length of time. The very best wishes of his friends here will accompany him in his matrimonial life.

Dr. Chas. D. Rogers, class of 1888, who located at Sitka, Alaska, has been very successful in his practice there. He occupies a very nice position as Surgeon in the United States Marine Hospital Service, is in charge of the Presbyterian Hospital, is married and nicely located.

REVIEWS AND BOOK NOTICES.

A Manual for Boards of Health and Health Officers.—By Lewis Balch, M. D., Ph. D., Secretary State Board of Health of New York; Health Officer of Albany; Emeritus Professor of Anatomy and Professor of Medical Jurisprudence, Albany Medical College. Price \$1.50 net. Banks & Brothers, Albany, N. Y.

The Secretary of the State Board of Health, Dr. Lewis Balch, has prepared a Manual for the use of members of local Boards of Health, Health Officers and all others interested in health matters. The book is exactly what it purports to be, a practical working Manual. It defines the powers of the State and Local Boards, it contains directions to the Local Health Officer, it gives examples of problems which may arise and their solution, it offers suggestions for the prevention of disease and it includes directions to be followed in times of danger from epidemics of contagious diseases which formulate the best method of stamping these out which experience has devised. It solves many legal questions in the most plain and practical way. The value of the Vital Statistics gathered by the State Board is explained and the duty of those who are required by the law to fill out the certificates, is fully defined. Blank certificates, having the questions properly answered, are given as models to be followed. Bound with the Manual is a copy of the Public Health Law to which it is designed to serve as a Commentary. The volume will be found to be of the greatest value to all who are interested in the Public Health

and it will enable Boards of Health and Health Officers to be certain of their positions in their dealings either with their Municipal governments or with the people.

Gray's Anatomy, New (13th) Edition.—Another edition, the thirteenth, of this standard work is announced for early publication by Messrs. Lea Brothers & Co. It is hardly too much to say that this work has been the most popular of all medical text-books whatever since its first appearance in 1851. Its text has been revised successfully by the foremost anatomists of a generation, and the present edition embodies whatever changes were necessary to make it represent its advancing science. The illustrations have always been noted for their clearness. Their large size has rendered it possible to print the names of the parts directly upon them, thereby indicating not only their names, but also their extent—a most important matter. A liberal use of colors has been made to secure additional prominence for certain parts. Notwithstanding these improvements, the constantly increasing demand has justified a reduction in the price of the colored edition. An early review will appear in these columns.

Dunglison's New Pronouncing Medical Dictionary.—A new edition of Dunglison's Medical Dictionary is announced as in press for early publication. It has been thoroughly revised and greatly enlarged, and will contain about forty-four thousand new medical words and phrases. Pronunciation has been introduced into the new edition by means of a simple phonetic spelling. This work has always been noted for the fulness of its definitions, ample explanation being its distinguishing characteristic. In the new edition much encyclopædic information, difficult of access elsewhere, will be found conveniently at hand. Especial attention has been devoted to matters of practical value. A review will appear in an early issue.

Cholera, its Protean Aspects and its Management.—By Dr. G. Archie Stockwell, F. Z. S., (Member New Sydenham Society, London) in two volumes. George S. Davis, Detroit, Mich., 1893.

A Chapter on Cholera for Lay Readers.—History, symptoms, prevention and treatment of the disease. By Walter Vought, Ph. B., M. D. Medical director and physician-in-charge of the Fire Island Quarantine Station, Port of New York; Fellow of the New York Academy of Medicine, etc. Illustrated. The F. A. Davis Company, Philadelphia and London, 1893.

The author of the first book belongs to the nearly extinct body of physicians who persistently refuse to acknowledge any of the claims of bacteriology and disbelieve that bacteria or their poisons have any etiological factor in the causation of infectious diseases.

The authors views on this subject may be seen from the following extract of his preface: "Again, I am pleased with the opportunity of contributing my mite toward undoing the evil wrought by the greatest medical heresy of the age—a heresy that seeks to elevate to the acme of pathological knowledge, a vain, visionary, theatrical egotist, devoid of even the shadow of medical training. The exponents of bacillar pathology depends solely upon hyothetical assumptions, ignoring all forms of evidence not adduced by themselves. With them the microscope is no longer an accessory to skilled observation, but may supercede the latter altogether. With profound contempt for biologiczo-zoological laws and their applications, factitious maladies, artificially produced, are made to replace real maladies. Their pathology is merely an experimental experience admitting of neither negations or offsets; their therapeutics, a form of still hunt with untried weapons, in an unknown jungle, after a hypothetical prey. Indeed, it is a sad travesty upon medical science when authors and would-be teachers wantonly assert rabies, cholera, yellow fever, dengue, tetanus, endo-carditis, pneumonia, etc., are "*diseases whose microbic origin is positively known*," when two of these are supported only by manifest fraud, in two more the evidence has never been adduced in any form, and in the other three it is of the most flimsy, superficial character. The list might be considerably increased as regards the latter. The tendency is to sacrifice truth to temporary self-aggrandisement; to assert individual preferences as established facts, regardless of results."

The intolerant and unfair statement just quoted show the character of the author's intellect, and makes us feel pity for the narrowness of mind exhibited. The book is not one to be recommended.

In pleasing distinction is the little work of Dr. Vought on "Cholera for Lay Readers;" it is written in a pleasant readable style by one who had much practical experience with the disease last summer. Though written for the laity, it is scientific, practical and thoroughly abreast of the times. The chapter on "Prevention" should be read by every layman, as it would do much to prevent the spread of the scourge should it obtain a foothold here, and would tend to diminish panic and fear by showing just where the danger lies, and how its inroads may be prevented.

It is with the utmost sincere regret that we must announce the death from typhoid fever, of the author of this book. At the age of 31, just as he was begining to show to the world the result of his well-stored and well-trained intellect, death has cut him off.

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**On Some of the Newer Methods of Diagnosticat-
ing Gastric Diseases; their Value
and Limitations.***

BY HOWARD VAN RENSSELAER, PH. B., M. D.

As practitioners and students in all phases of medical progress, it is incumbent on us, although we may be principally engaged in some particular specialty, to have a general knowledge of the broader principles which underlie the others, and especially to keep ourselves informed of the most important progress and discoveries made in the collateral divisions of medical science. It is well-nigh impossible for the busy physician to follow all the additions made to our knowledge, and it is especially difficult to keep abreast of the times in the new facts which are constantly evolved in the various experimental laboratories, partly because these contributions are apt to be incorporated in journals especially devoted to these subjects, and which, therefore, have not a general circulation among practitioners, and partly also by the confusion which often exists in the mind of the reader, on finding that the experiments and opinions of one competent investigator are frequently offset by the diametrically opposite conclusions drawn by another perhaps equally as trustworthy.

It is well, therefore, to step aside, from time to time, from our every day routine work, to take a critical, thoughtful review of the progress of medical science, that we may have a more clear and accurate idea of what has been already accom-

*The Vice-President's Address at the Semi-Annual Meeting of the Medical Society of the County of Albany, October 10, 1893.

plished, and also to familiarize ourselves with the particular lines which investigators are following up, in their endeavors to elucidate new problems, and to appreciate their reasons for modifying older hypotheses. It is for this purpose that I wish to call your attention to-night to some of the most recent methods of diagnosing diseases of the stomach, their value and limitations.

Since in 1824 Prout discovered free hydrochloric acid in the gastric mucus, and Schwann in 1863 proved the presence of pepsin in the stomach contents, physiological chemists have gradually been adding to our store of knowledge, numerous facts concerning the complex problems of digestion. They have not only analyzed the changes produced in digesting food, but have constantly been seeking new ways of determining the functional activity of the secreting glands, the chemical changes produced by abnormal conditions of the glandular secretions and the influence on digestion, induced by disturbances of the motor functions of the viscus.

The results of their experiments have so far advanced our knowledge, that not only is the peptonizing process important to us, but we must also clearly understand the relation that each function has to all the others, to enable us to make an accurate anatomical diagnosis, and to institute a rational mode of treatment.

In regards to the ordinary methods of diagnosing diseases of the stomach by inspection, palpation and percussion, little need be said, as their general application is so universal. To determine the question of increased size of the viscus, we may employ gas, fluids or the electric light.

When gas is used, it is well in the first place to distend the colon with water, and then either by passing a stomach tube and pumping in air, or more simply and agreeably, by means of one or two seidlitz powders, the acid and alkaline portions being given separately, the stomach is dilated by the gas evolved and its size readily mapped out. .

When we employ water, the colon can, if adviseable, be distended with air. One-half pint of water is then drunk,

and by percussion, the lower curved border of flatness determined, successive draughts of water are consumed until a quart is taken, the amount of displacement of the organ being ascertained with each draught.

By these methods, the lower border, when the gastric walls are normal, should not quite reach the level of the umbilicus. When the muscular layer, however, is relaxed, the stomach sinks below this level, and where ectasia or ptosis exists, the first introduction of water will show great displacement of the organ.

The stomach may be examined by the acid of the electric light by one of two methods. That of invented by Einhorn* demonstrates the size of the viscus, indicates the presence and size of tumors or thickenings of the anterior surface, and permits the differential diagnosis between gastrectasia and gastropotosis. The instrument which he calls a gastrodiaPHONE, consists of a soft stomach tube, inclosing conducting wires, which connect with an incandescent lamp situated in the gastric end of the tube, and with a portable battery at their other extremities. To employ the instrument, the stomach must be free from food and distended with water. The tube being as easily passed as an ordinary stomach tube. As soon as it is introduced, the room is darkened and the electric light is turned on. The stomach of a reddish color is seen defined on the abdominal wall. Its size and position can easily be mapped out, and should a tumor or thickening occur, a dark spot in the red, marks the interference of illumination.

The other instrument is the gastroscope, manufactured by Leiter, of Vienna. It resembles the cystoscope and is used in the same way. While it does not indicate changes in the size or position of the stomach, as the gastrodiaPHONE does, it enables one to see the alterations which may have taken place in the mucous membrane of any part of the organ, and gives us visual knowledge of the appearance of any tumor. It consists of a metal tube containing an electric light near the end, near which a glass prism is inserted. The light is re-

*New York Medical Monatsch, Nov. 1889; New York Medical Journal, Dec. 3. 1892.

flected in the prism and passes through a telescope placed in the tube, and presents a magnified image of a portion of the wall of the stomach to the eye of the observer placed at its end. The instrument being turned in different directions, successive portions of the mucus membrane are very clearly presented to the eye of the investigator, and any changes from the normal, are readily recognized. Theoretically, it is an admirable instrument, but on account of the rigidity of the tube, it is very difficult of application, and its price makes it prohibitory to the majority of practitioners.

Passing now from the methods used to determine the size, position and condition of the walls of the stomach, we come to a consideration of the morbid products produced during the process of digestion by alterations in the gastric juices and in the absorbability of the organ and disturbances of its motor function.

The first real advance in our knowledge of gastric derangement, was the employment by Leube, in 1871, of the stomach tube for diagnostic purposes. Since his time, this method has been markedly developed and improved; its present application being as follows: After a short interval of fasting, or preferably in the morning, as during the night the stomach has completely emptied itself of food, a test breakfast is injected. Of these trial meals, a number have been recommended. The one most in use, is Ewald's, which consists of a stale roll or 50 grams of stale white bread, without butter, and 300 c. cm. of water or an equal quantity of weak tea without sugar or milk. The dinner of Leube and Riegel is composed of 400 c. cm. of soup, 50 grams of stale bread, 60 grams of scraped beef and 200 c. cm. of water.

When the process of digestion is normally at its maxim, which it has been found by experiment should be in a little less than an hour for Ewald's breakfast and from three to five hours for Leube's, the contents of the stomach should be removed by means of a soft rubber stomach tube, either by the expression method recommended by Ewald or by aspiration. The latter is perhaps the better way, as by it the patient is

less incommoded, there is less danger of hemorrhage from an unsuspected ulcer, and less liability of a reflux of alkaline juices from the duodenum.

Before describing the practical examination of the food removed by the tube, it will be necessary to rapidly review our present knowledge resulting from laboratory experiments on digestion in both normal and abnormal conditions of the stomach.

Food when taken into the mouth and mixed with saliva, is found to contain many kinds of bacteria; some of these entered with the food, and others are constantly present in the bucal secretions. We may roughly divide them into two groups, one, which attacks the carbohydrates and forms acids, the other, which decomposes albuminoids into alkaline compounds. The fermentation produced by them together with the amylolytic action of the saliva, ceases only when free hydrochloric acid is secreted in sufficient quantity to inhibit their action or to destroy them. Before the introduction of food the normal fasting stomach is empty and contains no gastric juices. The presence of food and saliva exert a stimulating action on the gastric membrane which varies with the character of the food present.

During the first stages of digestion lactic acid, as the result of fermentation of carbohydrates, may be present, but as soon as hydrochloric acid is excreted in large quantities, the lactic acid disappears.

The hydrochloric acid is now considered by the best authorities to be secreted free, and can be detected in the stomach contents about an hour after a meal; the largest amount being found about two hours after eating; its percentage averages between 0.15 and 0.22 in normal gastric juices; any deviation from these per cents is abnormal.

The hydrochloric acid, together with pepsin and rennet are the agents producing peptonization of albuminoid matter. This peptogenic function may be divided into three stages. The first is a combination of acid and albumin, forming syntonin, the second product is propeptone, and the third peptone.

Evidence of absorption should be detected chemically within twenty minutes from the taking of the food or drugs, and the stomach should again be empty in between six and seven hours after the meal.

On obtaining the gastric contents, they should be examined as early as possible that fermentation and digestion may not proceed. The turbid fluid is first scrutinized visually for blood, bile, mucus, pus, and evidence of solution of food; and by smelling, to detect acetic and butyric acids if present. The finely granular solids are examined microscopically to recognize an augmentation or retardation of the digestion of starch. The turbid fluid is then filtered, the filtrate usually being of a clear, amber color, resembling urine.

The reaction of the fluid is determined by litmus or Congo paper, and being found to be acid, the total acidity, i. e., that due to free acids and acid salts, is ascertained by Leo's method, as follows: When lactic and fatty acids are present they must first be removed by the methods described later, then 10 c. c. of gastric filtrate, to which are added 5 c. c. of a saturated calcium chloride solution and a drop or two of a one-per-cent alcoholic solution of phenolphthalein, are titrated with a deci-normal sodium hydrate solution (which consists of 4 grams of sodium hydrate dissolved in a litre of water), until a persistent reddish hue shows neutralization. Each c. c. of this solution neutralizes 0.0036, gram of hydrochloric acid. The number of c. c. used in the titration, times 0.0036, represents the percentage of free and combined acids in 100 c. c. of the gastric filtrate. The resulting quantity we will represent by the letter A. To 15 c. c. of an additional quantity of gastric filtrate, 1 gm. of pure powdered calcium carbonate is added, the mixture shaken and filtered, and air passed through the filtrate so as to remove all carbon dioxide. To 10 c. c. of this solution the phenolphthalein test is applied as above described, and the resulting quantity represented by B.

A stands for the total quantity of free and combined acids, B for the combined acid alone, as the free hydrochloric acid

has been removed by the calcium carbonate. If B now is subtracted from A the difference is the total quantity of free acid. Many other methods have been invented to quantitatively determine the free hydrochloric acid; this one of Leo's is the most accurate, but is still only relative, no perfectly reliable method being yet discovered.

Lactic acid may occur in small quantities during the earliest stages of digestion from the fermentation of carbo-hydrates, or as sarcolactic acid in albuminous matters. After the interval that a test meal is examined there should be no trace of lactic acid; when it is present is it a pathological product. It is detected by Uffelmann's solution, consisting of a few drops of a neutral ferric chloride solution to which a drop or two of pure carbolic acid is added. This solution is then diluted with water until it assumes a beautiful amythist blue color, then a few drops of the fluid to be tested are added. A trace even of lacate acid will turn the amythist color to a canary yellow. Unfortunately phosphates, alcohol, sugar and certain salts respond to the same test. When this reaction is positive, we proceed as follows: A small quantity of the filtrate is agitated with three or four times its bulk of neutral ether. The ether absorbs the lactic acid and after having been poured into a watch glass is evaporated; the residue, composed mostly of acetic acid, is tested by Uffelman's reaction.

Acetic acid may be detected by the smell when present in considerable proportion; small quantities are tested for by neutralizing the aqueous residue of the etherial extract with sodium carbonate and adding neutral ferric chloride solution. The presence of acetic acid is shown by the solution becoming a brilliant blood red color. The fatty acids are detected by boiling a little of the filtrate in a test tube, over the mouth of which are placed pieces of moistened litmus paper. The distilled acids turn the paper red.

Having now given the modes of testing for the various acids, we must briefly examine the process of digestion, in regard to the two ingredients, starch and albumen. By the

action of hydrochloric acid and pepsin on albuminous matter, a series of bodies are formed; they are successively, acid albumin or syntonin, pro-albumose, hetero-albumose, deutero-albumose and finally peptone.

Until very recently it was thought that most of the albumen was converted into peptone in the stomach as the end product of digestion. But Chittendon* has shown that the product "peptone" is composed of deutero-albumose and peptone, or a mixture of the other albumoses alone or with peptone, and that the proportion of true peptone in the stomach is minute.

These various substances are tested as follows: A small quantity of the gastric filtrate is boiled; if a precipitate occurs it is albumin or syntonin. To distinguish between the two the filtrate is neutralized, if a precipitate is thrown down, it is syntonin. The boiled and filtered filtrate is saturated while still hot, with neutral ammonium sulphate, which precipitates almost entirely the albumoses. The resulting filtrate containing the ammonium sulphate is then tested for peptone. Strong potassium hydrate is added to the filtrate until all the ammonium sulphate is decomposed, then a few drops of a weak solution of copper sulphate is added. If peptone is present, the fluid turns purple-red to bluish-violet, depending on the amount present.

The conversion of starch into sugar takes place also in stages, the resulting compounds being dextrine, and its two varieties, erythrodextrin and achroodextrine, maltose and dextrose. For the detection of starch, Lugol's solution, composed of iodine 1 part, potassium iodine 2 and water 200, is used. It produces a blue coloration in the presence of starch. Erythrodextrine turns this solution purple or brown. Achro-dextrin, maltose and dextrose produce no change in the solution.

The question as to the absorbability of the stomach is solved by the method of Penholdt and Faber. Two grains of potas-

*"On the relative formation of Proteoses and Peptones in Gastric Digestion." *Journal of Physicians*. Vol. XII, No. 1.

sium iodine enclosed in a capsule, together with a little water, are injected on an empty stomach. The iodine is normally rapidly absorbed and should be detected in the saliva, in from six to fifteen minutes. Where it is tested for by moistening strips of starch paper with saliva and adding a drop of fuming nitric acid; a blue color appears when iodine is present.

The propulsive function of the stomach is determined by the salol method of Ewald & Sievers. This depends on the property of rapid absorption of salol from the stomach and conversion in the blood into salicyluric acid. This acid is excreted by the kidneys and admits of ready detection in the urine. Fifteen grs. of salol are injected after a meal. Half an hour later and subsequently every 15 minutes until a reaction occurs, the urine is tested for salicyluric acid, by moistening filterpaper with urine and adding a few drops of a 10 per cent. solution of ferric chloride. As soon as a trace of salicyluric acid is present, a violet color appears. This reaction occurs normally in from 40 to 75 minutes.

Now having cursorally sketched the more important tests used in diagnosing stomach diseases, we come to the practical results that may be obtained from such examinations. The various stomach disorders are characterized by a disturbance of one or all of the gastric functions, secretion, absorption and propulsion. Of these, alterations in secretion are the most common; those of absorption of the least consequence, while the act of propulsion is looked upon as the most important. When this last function is diminished, secondary, nutritive and secretory disturbances are apt to ensue. The food lies in the stomach and not being normally propelled into the duodenum, soon undergoes fermentation and putrefaction and the body nutrition suffers.

Diminution of propulsion rarely occurs without some obstruction to the passage of food into the intestine, so that the knowledge which is obtained by testing this function, together with that of secretion and absorption is of very great diagnostic importance where we suspect stenosis, due to some morbid process. The alteration of secretion may comprise an

increase or diminution of the production of hydrochloric acid, pepsin and rennet ferment.

When the secretion of gastric juices is deficient, usually there is a greater lack of hydrochloric acid than of pepsin. On account of this diminution of acid, digestion is prolonged, fermentation usually occurs, and the albuminous matters are slowly and but partly digested. On examining the fluid after a test meal with diminished secretion, the meat is found partly digested, its fibers are swollen and but little changed. Lactic and other organic acids are recognized long after they should cease to be present.

Diminution or even absence of hydrochloric acid occurs sometimes as a neurosis in hysterical and neurasthenic persons, in all acute fevers, and also in gastric catarrh, acute or chronic, primary or secondary. It has also been maintained that diminution or absence of hydrochloric acid attends all varieties of cancer in any situation of the body, but so many cases have disproved this idea, that recently the absence of hydrochloric acid as a diagnostic sign of cancer, has been modified and the conclusion now is forced on us that it points more to an aberration of function than to any particular gastric lesion.

Though this anacidity cannot be considered as diagnostic of cancer elsewhere, yet it is associated very closely by observers with carcinoma of the stomach. The most important cause of this diminution of acidity in cancer is probably due to the infiltrating character of this disease, producing an atrophy of the glands and an additional gastritis. It is in those cases of beginning carcinoma about the pylorus before any evidence of tumor can be made out, but in which stenosis is commencing and perhaps gastrectasia, that the chemical method of investigation gives pretty reliable information.

In a case where a patient complains of occasional vomiting with some epigastric pain, and an analysis of the stomach contents after a test meal, shows albuminous food but partly changed, an acidity due to lactic or other organic acids, but with marked reduction or absence of hydrochloric acid, and a diminution of the propulsive power of the stomach as is

proved by the salol test and by finding partly digested food seven or more hours after a meal, the presumption is very strong indeed that we are dealing with a carcinoma that is producing stenosis of the pylorus.

In a contrasting case if one can feel a tumor and there is perhaps pain in the region of the stomach which would lead one to diagnose carcinoma ventriculli, and we find by our chemical tests that the motor power of the stomach is perfect, and that the secretion and absorption are normal, we can say with considerable positiveness that the growth has no connection with the stomach. Riegel, in this connection, has made the strong statement "That the constant presence, in a gastric juice, of free hydrochloric acid and a normal peptic strength allows the exclusion of cancer of the stomach with certainty, regardless of the other symptoms, however strongly they point to that disorder."

By the chemical method examination of atrophy of the gastric glands can be detected more surely than any other morbid process in the stomach. The atrophy may occur alone, or may accompany carcinoma, gastritis or pernicious anæmia. On examining such a case the fasting stomach is usually empty. In the gastric contents, after a test meal, neither mucus pepsin, rennet nor hydrochloric acid can be detected. In a case of this character Jaworski's method should be tried. It consists in giving 300 c. c. of dilute hydrochloric acid and half an hour afterwards of removing it from the stomach. During this period, if the peptic glands can perform their function, the stimulus of the acid will excite their secretion. Testing the digestive power of this fluid will show its inefficiency if atrophy is present.

This method serves also as a differential test between carcinoma and atrophy, as in the former pepsin is usually detected. Another point of differential diagnosis between the two diseases may be obtained by microscopic examination of the gastric fluid. In carcinoma altered blood pigment usually may be found, which is absent in atrophy.

In gastritis, when the stomach contents are siphoned off, a quantity of mucus is present which together with the chemical examination makes the diagnosis comparatively light. During the progress of the disease there is a gradual diminution in the production of pepsin and hydrochloric acid, and there may be even a complete anacidity. Yet at the same time the reaction of the stomach contents is strongly acid, due to the inorganic acids, lactic, fatty, acetic and butyric. The motor function is also disturbed, being much weakened and in the latest stages, absorption also is diminished.

Hyperacidity is less common than anacidity and is always an expression of irritation. It is most common in ulcer of the stomach and gastric neuroses. All investigators have found that in gastric ulcer, hydrochloric acid is always present and usually in excess. In the neuroses, sometimes there is anacidity. Sometimes the acidity is normal, and sometimes there is hyperacidity; so that thus far the chemical tests have added little to make the diagnosis of these troublesome diseases easier.

From what we have now considered, it is evident that these newer methods of investigation can fairly show us exactly how each of the functions of the stomach is performing its duty. This is of immense importance to us in every doubtful case, as without this knowledge we cannot administer our treatment in a rational scientific manner, but we are merely groping about, held in the thralls of empiricism. In spite of the value of these newer methods to us, they do not open any royal road to diagnosis, but they are certainly great aids and adjuncts to the older methods of investigation.

Ewald, in speaking of these newer methods, has said: "In view of many recent events, I believe it my duty to warn against a one-sided overestimation of their value. Only the most careful and thorough consideration and weighing of all the symptoms which can be obtained, with all the diagnostic resources, will enable us to recognize the existing disease. Not even the most careful chemical examination of the functions of the stomach will put within our grasp the divining

rod which will magically call forth the fountain of knowledge from the adamantine rocks of obscure symptoms!"

But while these tests are at present mostly confirmatory, we are surely working along the right lines, and with the advance of the sciences of chemistry and physiology, on which these methods of investigation rest, we may confidently expect that our diagnosis will in time become much more perfect and exact.

Modern Dietetics.*

BY J. E. BRENNAN, M. D.

A knowledge of the physiology of digestion lies at the root of sound practical dietetics. Though a discussion of the intricacies of digestion, and the consideration of the comparative value of food-stuffs, is beyond the scope of this paper, a brief résumé of both is necessary to the right understanding of the principles which I endeavor to set forth.

RÉSUMÉ OF DIGESTION.

Food taken into the mouth, during mastication, meets with the saliva, which converts some of the starch into glucose. Following the mechanical processes of mastication and delution the food enters the stomach. Here the albuminoids are converted into albuminose, peptone and santonine, by the action of the gastric juice, which also digests the fat vesicles, setting free the fat globules. The fats and starches which are not affected by the gastric juice, pass with the sugars into the small intestine, unchanged. The intestinal secretions are supplementary to the action of the saliva upon the starches. The pancreatic juice acts upon starch, converting it into glucose, and changing albumin into albuminose, leucin tyrosin, &c. This secretion also changes cane-sugar into glucose. It emulsifies the fats. Bile promotes the absorption of fats, prevents decomposition, and by setting up peristaltic action, acts as a natural purgative. The conversion of starch into glucose, albuminoids into albuminose, syntonin &c., appears to be a hydration of those substances, brought about by the presence

*Read before the Medical Society of the County of Albany, April 25, 1893.

of ptyalin, pepsin and pancreatin. The organic principles to which the action of the alimentary secretions are due, are elaborated out of the blood and stored up during the intervals of digestion by cells of which the glands consist.

The ptyalin, pepsin, trypsin and pancreatin differ from the principles usually present in the gland, being developed out of the latter at the moment of secretion. That the phenomenon of secretion is not one of mere filtration, is shown by the pressure exerted during secretion, and that chemical action is going on is shown by the heat developed. The contents of the large intestine consist of the undigested food which amounts to about $\frac{1}{2}$ by bulk, decomposed bile, and such digestive principles as have not been absorbed. As these substances pass through the large intestine, they gradually assume the color, odor and consistence of feces. These accumulate in the sigmoid flexure; and their expulsion from the rectum constitutes the act of *defecation*. Concerning the condition of the digestive organs themselves, the following essentials are necessary to a vigorous digestion, namely: A healthy condition of the mucous membrane; a due supply of normal gastric juice; sufficient nervous stimulus and good muscular tone, to insure proper rhythmic movements.

With these conditions present, a dietary is suitable or well balanced when it is adapted to the wants of the individual. The proper apportioning of the following 12 elements, with due regard to age, circumstances and surrounding of the individual, constitutes the necessary diet in health. Hydrogen, Nitrogen, Oxygen, Carbon, Chlorine, Phosphorous, Iodine, Potassium, Calcium, Magnesium, Iron. All of these elements must be represented in the food of man, and they must be for the most part combined in the form of organic compounds, capable of being absorbed by the digestive organs. Of these elements, Nitrogen is the most important, as it is the essential element of all living things. Vital phenomena, with its accompanying changes and activity are found only where this element is present. In a practical sense these elements are combined so as to form four great food classes, i. e.: 1 The Nitrogenous,

Albuminoids and Proteids. 2 Carbo-hydrates, Starches and Sugars. 3 Hydro-carbons, Fats. 4 Mineral-salts and Water. Albumin as taken in the form of mixed food, meats, milk, &c., egg, is the most necessary of the food principles for sustaining life, being the great waste restorer of animal tissue, it most nearly resembles the various constituents of the body in its chemical composition.

This is the most necessary part of food under all circumstances, but especially during periods of muscular waste, as in youth, during violent exercise and in disease. Life cannot be sustained upon a non-nitrogenous diet. The starches, sugars and fats in storing up reserve or adipose tissue, are of great importance. The loss of them results in rapid emaciation, as is seen in the condition known as Diabetes Mellitus. In disease, the diet while consisting of these same foods, must of course be modified to meet the altered demands of the disordered system. In health the usual three meals a day are found to be the most convenient division. But the invalid cannot take a sufficient amount at a time, to last five or six hours, and must therefore have his smaller supply at shorter intervals. The length of the interval will depend upon the quantity that can be taken at a time, the kind of food and the rapidity of absorption. As plain, simple cooking is the rule in health, how much more necessary is it to adhere to the same in sickness? The food cannot be too simple, too good, nor too daintily served. We know from experience that no one form of food, however excellent, can be given in all pathological conditions. There was a time when beef-tea was supposed to be suitable for all conditions, by both medical attendant and nurse.

Experience has shown that this article of diet as a strength-sustainer, is a delusion. Common well-water containing the usual amount of bacteria, contains more nourishment than beef-tea as ordinarily made. If beef-tea is given, it should not be boiled, as this coagulates the small amount of nourishment it contains; the albumin. Good milk is always preferable. Milk contains all the proximate principles necessary

for the support of man. It is remarkable how long a milk diet can be maintained in those cases where it agrees. Instances are known where individuals have adhered to it for years, while leading fairly active lives. Sometimes skimmed milk only can be borne as the cream causes dyspsesia. On the other hand, the removal of the cream causes constipation.

The nature of my subject renders it impossible to generalize, and time will not allow me to refer to the dietaries of each particular disease. A printed diet list, either in pad or book form, indexed for the most common diseases and containing a dietary applicable to each, is of the utmost value, saving the physician's time and avoiding mistakes by giving friends or attendants express instructions.

The Role of the Posterior Urethra in Chronic Urethritis.

In a paper read by Dr. Bradford Lewis, of St. Louis, before the June meeting of the American Association of Genito-Urinary Surgeons, (*Medical Record*, June 29, 1893), the author presents some very radical and unorthodox views on the frequency of posterior urethritis and its influence in the production of chronic gonorrhœas.

The various causes commonly accepted as sufficing to explain persistence in gonorrhœa, were reviewed, and their potency as such was denied, seriatim. Two cases were reported showing that the presence or absence of the gonococcus, alone, could not form a reliable criterion as to prognosis: Case I. (primary) with abundant gonococci—containing discharge, lasted six weeks: while Case II. (secondary), also giving abundant gonococci—containing discharge, lasted only one week. The influence of anatomical abnormalities was restricted to only a small minority of the exceedingly numerous cases of chronic gonorrhœa, and did not explain the great number that occurred. The several varieties of urethritis, such as "granular urethritis," "catarrhal urethritis," "hypertrophic urethritis," etc., were only pathological incidents, not causes, of chronic gonorrhœa; and even on discriminating between these

several varieties, the question still obtruded itself: What was it that had produced that particular variety?

Again, urethral therapists, with ardently-advocated new remedies, supposably specifics, had all in turn failed in their endeavor to abolish prolonged claps. So that it must be acknowledged that the various factors to which chronic urethritis was usually attributed, while relatively important in a contributory way, did not cover the ground in actual clinical experience; and something else must be found to bear the onus of being a prolific source of chronic gonorrhœa.

While aware that infection of the posterior urethra was almost universally recognized, by advanced practitioners of the present day, as a complication of gonorrhœa that was difficult to cure when it did occur; that interfered with the usual course of treatment employed, and required special measures for its relief, etc., he did not believe that the full importance of posterior inflammation was generally conceived; that its frequency was even approximately estimated in general, or its bearing on almost every case of gonorrhœa was understood, recognized or acknowledged.

In Dr. Lewis' opinion, the posterior infection should not be looked upon as a complication, but as a natural feature, occurring with such unfailing regularity that an observer, watching carefully and critically, gonorrhœal cases. must see a great many of them before he would meet with a single one that remained free from the so-called complication throughout the disease. This conclusion, to which clinical investigation had led him, was supported, in recent writings, by the following statistics of authors who had been pursuing a similar study of late years: Lesser asserted that of 53 cases of primary gonorrhœa under his care, the posterior urethra escaped infection in only four cases, making the frequency of posterior urethritis 93.5 per cent. Jadassohn found posterior urethritis in 143 of 163 cases, making 87.7 per cent; Rona found it in 79.7 per cent of his cases; and Eraud found it in 80 per cent of all his cases.

In endeavoring to harmonize this undoubted fact of frequency of posterior urethritis with the reason for its frequency, the author disregarded, as inapplicable, explanations usually given. Sexual intercourse, the "forced" injection, the passage of instruments, etc. during an active gonorrhœa, were chiefly complained of by writers on the subject—extremely seldom by the patients themselves. Bearing on this point, the time and mode of onset of the posterior inflammation was of importance. Instead of the inflammation progressing slowly and gradually backwards over the urethral mucous membrane and reaching the posterior urethra in the second or third week, as was commonly taught, it reached the posterior urethra, in most cases, in the first (active) week of the disease. This rather favored the supposition of Horteloup, that the mode of infection was through the lymphatics, rather than by continuity over the mucous surface.

The author, therefore, felt justified in submitting the following conclusions:

1. The cause usually given for the prolongation of cases of clap (presence or absence of gonococci, stricture of large calibre, the use of particular drugs in treatment, etc.) do not satisfactorily explain them, nor do they furnish reliable means for prognosticating the outcome of a case.

2. A single widely prevalent cause for such prolongation of gonorrhœa has, as yet, nor proved its right to recognition as such.

3. Posterior urethritis, by reason of its anatomical seclusion and inaccessibility to ordinarily-prescribed treatment, if frequent, offers the best explanation for such prolongation or repeated recurrence.

4. Scrutinizing clinical investigation shows posterior urethritis to be present in the great majority of cases, of prolonged or severe gonorrhœa.

5. Direct, topical treatment to the posterior urethra is, therefore, necessary in the great majority of cases.

6. The causes usually given for producing posterior urethritis are not commonly found to be real factors in the clinic.

7. The mode of onset usually described does not coincide with that discerned in clinical observations.

8. These two latter observations confirm the probability that the posterior urethral infection is accomplished through the lymphatics, and explain the frequency of such infection.

9. Posterior urethritis is not a complication, but a natural phenomenon of gonorrhœa.

What Becomes of Medical Graduates?

A correspondent of the Medical Age writes as follows: "I have endeavored to keep track of one hundred of my medical friends after graduation, especially of what they did during the first five years, and find nearly seventy-five per cent. had to resort to other employment to make a living. Twenty-three received a salary, either in addition to practice or separate therefrom. Fifteen were proprietors of drug stores. Three were insurance agents. Four loaned money. One sold real estate. Three were connected with medical journals. One was an agent for drugs. One for books. One preached. One was in patent medicine business. Two were farmers. One sawed wood, and subsequently suicided. Twelve gave up in disgust, and one never tried to practice at all. Twenty-nine graduates only in one hundred exclusively devoted themselves to medicine, and of these eleven associated themselves with other practitioners, and in many cases fell heir to their practice."—*Medical Record*.

How the Charity Patient Got the Better of the Doctor.

—A young man was admitted into the Jewish Hospital at Buda Pesth, so badly injured that the surgeon decided to perform an operation upon him. While beginning to operate on the patient's left arm, the surgeon looked at his watch, and after finishing with the case, he noticed that his watch had been stolen from him by the patient's right hand. The thief was handed to the police for the continuation of "treatment." Fortunately the surgeon recovered his watch, but lost a patient.—*Saint Louis Medical and Surgical Journal*.

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ANNOTATIONS.

The New Pharmacopœia.—In a new pharmacopœia, as indeed in all new editions of standard works, one naturally looks for changes and improvements, and in the 1890 edition of the U. S. Pharmacopœia just published, will be found changes enough, and in the nature of improvements, to satisfy the most exacting of reviewers. This is apparent on first taking up the book in the appearance of what may be termed its mechanical parts, which embrace letter-press and binding. With regard to the pure literary features of the volume, what will impress the student at first glance, is the clearness of expression. This is evident in the opening paragraphs of the preface or preliminary notice in which changes have been introduced that reveal in clear and distinct manner what has been the constant aim and object of the Committee of Revision, namely: extreme conciseness of expression. This reveals itself in many ways throughout the book, and in this respect alone, the New Pharmacopœia is a step in advance of the old. The expressions of weight and volume in the New Pharmacopœia are based on the units of the metric system. With reference to the apothecaries' weights and measures, which in this country and England is still the most popular method of expressing weight and volume. It is recommended that in abbreviating the unit gr., the sign should always be written with a small initial. This is a commendable feature, as it serves to distinguish better between the grain and the gramme, more especially as the contraction of the word gramme is recommended to be written Gm with a large initial.

The number of articles dismissed from the New Pharmacopœia are remarkably few as compared with corresponding changes in previous editions. Among what may be regarded as important dismissals from the new work are such well known drugs and preparations as Blistering Paper, Elixir of Orange, Extract of Malt, Inspissated Ovgall, Mixture of Magnesia and Asafetida, Oil of Lavander and stronger White Wine. The remainder, amounting to 92 articles, are drugs or preparations of drugs which were rarely used outside of certain localities. Many of the Latin and English official titles have been changed. In the official Latin titles the number of changes amount to 57, but the majority of these are unimportant and scarcely deserving or mention. Among the most noteworthy, may be cited: Aether for Aether Fortior, Aloe Socotrina for Aloe, Cusso for Brayera, Creosotum for Creasotum, Coca for Erythroxylon, Extractum Belladonnæ Foliorum for Extractum Belladonnæ Alcoholicum, Extractum Belladonnæ Radicis Fluidum for Extractum Belladonnæ Fluidum, Mangani Dioxideim for Mangani Oxidum Figrin. A new term "Emulsum," has been introduced to take the place of the word "Mistura," for certain emulsionlike compounds. Mistura Ammoniaci is hence described under the head Emulsum Ammoniaci, and the same holds good with what have been heretofore known as Mixtures of Almond, Asafetida and Choloroform respectively. Sapo Viridis becomes Sapo Mollis, in the New Pharmacopœia.

Grave confusion and serious accidents have been known to result from too radical sudden changes in the strength of the more important official preparations of revised pharmacopœias, and with regard to this it is satisfactory to note that in the U. S. Pharmacopœia no changes of great importance have been made in the strength of active drugs which given preparations may contain. Calx Chlorata should contain at least 35 per cent. by weight of available chlorine instead of 25 per cent. as formerly. The strengths of Decocta and Infuse have been raised from one part in ten to one, part of the drug in five. While Extract of Nux Vomica as prescribed, heretofore, had no fixed alkaloidal strength. It must now contain 15 per cent. of alkaloids by weight. The morphine strength of powdered opium has been changed from 12 to 16%, to 13 to 15%. Pepsin is now required to digest 3,000 parts of albumen for every one part of the ferment employed. Saccharated Pepsin should digest six times more albumen than was for-

merly the limit; the increare being placed at one to 300. The atrength of Tincture of Physostigme has been increased from one in 12.15 Cc., to one in six Cc. Physicians and pharmacists should take due note of this.—*The American Druggist*.

On Treatment of Burns.—The profession is not of one mind as to the ideal dressing in recent burns. The following is a resume taken from the *Pacific Record*, of an article by Dr. K. A. Von Bardeleben (Berlin), upon this subject: Up to our days, Starl's burns remedy (Ol. lini et oq. calcis ana) has occupied the foremost place in the treatment of burns. The only improvement consisted in endeavors to give some play to the antiseptic principle, and for this purpose carbolic acid or some other antiseptic was added to this remedy. In recent times iodoform has been used in the treatment of burns in the way of a powder applied to the sore spots. Unfortunately, frequent phenomena of intoxication were observed, necessitating a change of bandage, accompanied by pains, but on the other hand, demonstrating how easily medicaments are resorbed by burns to which they are applied. Barring trifling burns, in the treatment of which collodium elasticum and argent, nitr. solutions in weak concentration, find a useful application. The author recommends bismuth in powder for all other cases. Since the beginning of the year 1889 a typical bismuth dry bandage has been used in the surgical department of the Friedrichshain Infirmary, at first on some of the patients, and later on, after having ascertained the good results on all of the patients admitted on account of fresh burns.

After carefully cleaning, the burned places were rinsed with carbol of salicyl (3 per cent.) solution. Then, after removing thoroughly all blisters and their contents, necessary antiseptic precautions being observed, an extensive bepowdering of the whole burned surface with bismuth powder is proceeded with. Then, in order to effect a permanent exclusion of the air, a bandage of Burns' wadding is applied, which has to be renewed later, when it becomes soaked, with the exception of the lowest layer of the bandage. Subsequently the bandage was somewhat modified. After the fashion of gypsum bandages, unstarched gause bandages were impregnated with bismuth powder, to be wound around the extremities affected with burns. Later on, for the purpose of economizing and of obtaining a closer adhesion, the bismuth powder was mixed with an equal quantity of amylum.

The advantages of this bandage treatment, are the following: (1) The bandage answers the requirements of a rational antiseptic wound treatment; (2) The bandage may be left for 14 days, while linseed oil bandage has to be changed very often in the midst of great sufferings; (3) Phenomena of intoxications are never to be feared. Sometimes transplantations of skin had to be performed. Whenever, after removing the first bandage, a probability of healing with transplantation was apparent. All further treatment was limited to the application of a single ointment bandage with Graf's boron-vaseline, under which healing usually took place very rapidly.—*The Canadian Practitioner*.

A Crazy Physician.—Dr. Robert Lincoln Watkins of New York City had himself inoculated with the tubercular bacillus, in the form of pure culture of the microorganism obtained from phthisical sputum. This was done at the Loomis Laboratory attached to the University of New York. Dr. Watkins also ingested a considerable quantity of the same culture. He has subjected himself to these experiments as an evidence that tuberculosis does not depend solely on the introduction of the bacillus tuberculosis into the human system. He believes that a healthy person, that is a person whose blood does not contain the so-called "third corpuscle," is absolutely immune to the bacillus. He has repeatedly examined his own blood, and never having found the dangerous corpuscle, he has determined to put his theory to the test in his own person. Control experiments on one or more guinea-pigs were made with the same virus, in the belief that the animal or animals will, within six weeks, become manifestly tuberculosed, while he himself will be in unimpaired condition. If the accepted theories of the profession hold good in this case, 12 weeks from the time of the inoculation of Dr. Watkins, will see him the victim of induced tuberculosis. But even this condition will give the experimenter little uneasiness, for his theory also comprises the curability of that disease when it is combated early. This is accompanied by the eradication of the "tubercular blood corpuscles," or hemetoblast, from the blood.

This is not the first time that Dr. Watkins has fenced with death. In 1892, while in Paris, he was inoculated at the Pasteur Institute with a culture of the spirillum of cholera. He rapidly developed intense choleraic symptoms, and for a brief time was seriously ill

This condition was overcome, and on the following day the adventurous experimenter was as well as before.

Dr. Watkins is reported to be an exceptionally robust person, and if he remains well, it may devolve on him to meet arguments to the effect that he is immune to the tubercular bacillus for other reasons than the absence of the so-called tuberculosis corpuscle from the blood. He has already been brought face to face with the statements of some of his colleagues, who claim to have repeatedly found the third corpuscle in the blood of persons who are not then or at any subsequent period, the subjects of tuberculosis.—*The Journal American Medical Association*.

Legal Effect of Accepting an Amount Less than Bill Rendered.—It is a general principle of the law, that where a demand is liquidated or fixed, and the liability of the debtor is not in good faith disputed, the acceptance of a less sum than is the creditor's due, will not, of itself, discharge the debt, even if a receipt in full is given. In such case the element of a consideration is lacking, and the obligation of the debtor to pay the entire debt is not satisfied. Unfortunately, however, this rule is denied application to bills rendered for medical services, according to a decision of the Court of Appeals of New York, in *Fuller vs. Kemp*.

Here a physician made out a bill for \$670 for medical services, in settlement of which a check for \$400 was sent him, and stated to be in full satisfaction. This was retained, credited on account and a bill for the balance rendered. The person charged thereupon, again wrote the physician, calling his attention to the express condition upon which he had forwarded the check, and that it was sent as payment in full satisfaction of the latter's claim for professional services to date; that he did not recognize his right to retain the amount so offered and repudiate the condition of the offer, and requested him either to keep the money upon the condition named, or return it to him by first mail. To this letter the physician made no reply, but kept the amount of the check, and after the expiration of nearly a year, brought action for the recovery of \$270, the balance of his account after applying the \$400 received. Under such circumstances, the court said no further recovery could be had.—*Journal American Medical Association*.

Dr. Reeves and "The Amick Cure."—Dr. James E. Reeves of Chattanooga, Tenn., has been arrested on a warrant sworn out by Dr. Amick's representative, on the charge of sending defama-

tory matter through the mails, and is bound over to Court under bond of \$1,000. Dr. Reeves says he is not in the least disturbed and that he shall go on with his exposures, "though there may be as many devils in the way as there are titles on the houses of Chattanooga." "I welcome the opportunity to expose the whole thing and make a Waterloo of it. I have 21 letters from people whose name appear in the Amick pamphlet showing the cure to be worthless."—*Medical News*.

The Practice of Hypnotism.—Earnest Hart (*British Medical Journal*) says: That since no evident advantage has during 40 years of extensive, patient and elaborate trial and research been obtainable by the hundreds of physicians and physiologists who have devoted themselves to the study of the question, it is justifiable to say that the practice of hypnotism, mesmerism, electrobiology and so-called animal magnetism, being almost invariably useless and dangerous, even in the hands of the most highly skilled, careful and conscientious physician, and is a most unfit and improper subject for platform shows. It is equally unfit for private amusement, and dangerous and improper as a society game. It is liable to gross abuse, and is frequently the means of fraud and imposture, extortion of money and degradation of body and mind. It is apt to induce serious injury to both. The confirmed and trained hypnotic subject is a maimed individual in mind and body, and likely at any time to be dangerous to himself and society.—*American Lancet*.

Sulphonal as a Hypnotic.—Herman D. Marcus, M. D., in *The Times and Register*, says: A hypnotic which can safely be administered, which shows none of the deleterious effects of chloral and opium, and which is both tasteless and odorless, must undoubtedly be considered the peer of its group. In Sulphonal we have just a drug. Hypnotics lose a great deal of their value when exhibited in patients who refuse to take medicines, and we will very often find a positive abhorrence of them. We are able to administer Sulphonal in a cup of tea, a plate of soup or other warm beverage without the knowledge of our patient. The greatest dangers with chloral and opium are their influence on the nervous and circulatory systems. Sulphonal is positively free of such dangers and even larger doses affect in no way the blood pressures. When a practitioner prescribes Sulphonal intelligently, he will always

class it high above all others in the group of "sleep producers." Sulphonal should be administered from one to three hours before retiring, and is best given in some warm liquid, such as hot tea, milk, broth, etc. The dose should be carefully adjusted to the requirements of each case, and ranges from 5 to 40 grains. Ten to 25 grains are the doses generally used. In the treatment of insane patients, Sulphonal is superior to any other hypnotic, the ease with which it may be administered being a great point in its favor.

We recognize a decided addition to pschiatric therapeutics in the methodical Sulphonal treatment. Cases of insomnia are readily combatted by the use of this drug. One case of a man 50 years old under my treatment had suffered nearly three months with insomnia. Bromides, chloral and morphine had no effect whatever. I prescribed Sulphonal, 15 grains. In two hours the patient fell asleep for four hours, and after being awake for one-half hour, slept again till morning. The next evening I prescribed 20 grains which produced a seven hours' sleep. In a case of a girl 20 years old suffering from mitral stenosis and acute peritonitis, bromides and morphia produced no sleep, while Sulphonal (50 grains) caused an uninterrupted sleep for three hours. In acute fevers accompanied by insomnia, Sulphonal has proved itself the remedy *par excellence*. In case of typhoid fever, 20 grains of Sulphonal produced six hours sleep. Bromides proved of no avail. Dr. Bond speaks very highly of its value in typhoid fever.

One of the greatest disadvantages of other hypnotics is their tendency to cause gastric disturbances. In Sulphonal we have a drug which may be safely administered to combat insomnia arising from gastric diseases. As a hypnotic in alcoholism, drug habits and gastric catarrh, it has proved itself superior to any other drug. Sulphonal is not an analgesic but a pure hypnotic. It will produce sleep but nothing more, and if it is necessary to obtund pain besides, it should be combined with such drugs as the case may indicate. With such an addition as Sulphonal to our pharmacopœia, drugs like opiates, chloral or the bromides, must necessarily disappear from the list of hypnotics. Sulphonal will never fail to produce sleep if properly used, and may be recommended to every practitioner, as the only reliable and safe hypnotic.—*Times and Register*.

Clinical Thermometers.—The following abstract from the Report (1862-93) of the Managers of Yale University, is of material interest to the profession and will warn those physicians who put their trust in instruments of precision.

It continues to be true that only a small percentage of the instruments sold are sent to us for certification. It is presumably true, also, that those which are sent here for certification, by the manufacturers, are carefully selected, and therefore, far more reliable than the average of those sold without certification. Nevertheless we are sometimes compelled to reject 25, 50 and even 75 per cent. of those sent us. As a rule, these are not rejected without receiving double the care and time required by the large majority of those to which certificates are accorded.

When there is taken into account the large percentage which the cost of certification adds to the manufacturers' prices, it is not to be wondered at, that when he has succeeded in continuously producing for a season, instruments with few and uniform corrections, he should point to these conditions as justifying his customers in accepting his instruments without other certification than his own. In those cases of this sort which have come under our observation, we have noticed that apparently the workman, when he has no longer an occasion to expect his work to be traversed by a disinterested authority, soon relaxes his efforts at an accuracy which is hardly yet fully appreciated by the ultimate consumer, and his instruments, when they come to us from his customers, are not quite up to the standard maintained when he was continuously or at short intervals, submitting them to such test, possibly he is not making due allowance for his changing standards.

It may be out of place to again invite the attention of our public to some points in the construction of registering clinical thermometers, which are frequently overlooked by makers and users of these instruments.

In those forms where the index is a short column of mercury, one-third to one-half an inch long, separated from the rest of the mercury by a small bulb of air, the index is often lost by being thrown down into the bulb, then the bubble escaping into the attenuated atmosphere of the tube, and when the index is restored, the separating bubble is not likely to be of the same dimensions, and the temperature indications will not be the same as the former bubble. The difference in the lengths of the tube

occupied by the old and new bubbles will account, approximately, for the differences in the reading. The bubble should always be as small as is consistent with its function of separating the columns of mercury. The tube should extend sufficiently beyond the maximum readings required, that the compressed atmosphere at the top of the tube may not force back the index, when the support of the mercury in the bulb is withdrawn by cooling.

In those forms where the "indestructible index" is maintained by a "trap" near the bulb, the various destructions of this cap may, at certain times, cause the index to drop irregularly when the mercury below the trap has contracted or may occasion a motion of the index by jumps; in fact in most of the reliable instruments of this form, it is merely a question of the number of jumps taken by the index in raising one degree. Most of those in which the index rises perfectly, smoothly and without jumps will justify these suspicions, that the index will drop, as soon as the mercury in the bulb contracts from the trap. While the index is rising freely the motion may appear continuous, but when the index is within a degree or two of coming to rest and rising slowly, the jumps may usually, easily be counted.

One recent practice has been, that when these jumps average $0^{\circ}.1$ or less, and the readings repeat themselves throughout within the prescribed limit of accuracy, the usual certificate is given. If the jumps average more than $0^{\circ}.1$ and less than one six degree, the readings repeating themselves as before, we modify the certificate, by making the limit of accuracy $0^{\circ}.2$ on the same certificate form, and when the jumps average more than one-sixth degree, we give no certificate.

The progress of producing the trap, leaves its walls in a somewhat unsuitable condition, so that the moderate concussions may cause particles of glass to separate, which particles, acting as a plug, may temporarily sustain the index, which, when the plug is dislodged, may drop. The contraction here is too small and the particles of glass so fine, that it is not always easy to detect them. The same dropping of the index may be due to the varying effect of the air in the trap.—*The Medical Surgical Reporter*.

Losophan.—In a review of the remedies introduced into the *Materia Medica* during the year 1892, Dr. I. Boas speaks as follows of Losophan: Losophan (prepared by the *Farbenfabriken*, formerly *Fr. Bayer & Co.*) is to be regarded as triodocresol. It

results from the action of Iodine upon in-oxytoluyl acid in the presence of an accurately measured quantity of alkali. In the reaction the carboxyl group is displaced and changed to carbonic acid. Losophan appears in the form of white needles, having a melting point of 121.5. It is soluble with difficulty in alcohol, but readily in ether, benzol and chloroform. At a temperature of 60 per cent C. it is readily taken up by the fixed oils. While readily soluble in dilute soda lye, Losophan is changed by concentrated lye into a greenish black amorphous body, which is insoluble in alcohol. Losophan undergoes perfect combustion, with liberation of fumes of iodine. It contains in round numbers, 80 per cent. of iodine. E. Saalfeld was the first to employ the remedy in a large number of cases of cutaneous disease, and to a certain extent, observed very good results. It was used as an alcoholic solution (1 part to 70 parts of alcohol and 25 parts of water); as a salve, (1 to 30); as a 1 to 2 per cent ointment with yellow vaseline or lanolin, to which 20 per cent vaseline had been added, further in form of a Losophan—traumatin solution, and finally in the form of a 1 per cent dusting powder. Saalfeld formulates the results of his experience as follows: Losophan exerts a favorable influence in the most frequent dermatomycoses, such as herpes tonsurans, and pityriasis versicolor, and in affections due to epizoa, in a series of cases of which it afforded a perfect cure. Losophan has also proved effective in the treatment of prurigo, of a few cases of chronic infiltrated eczema, sycosis vulgaris, acne vulgaris and rosacea. In several cases of idiopathic pruritus of the skin it exerted a favorable although less marked effect. In urticaria it proved of only slight value as a means of relieving itching, and of no value in psoriasis vulgaris and primary syphilitic affections.

The action of Losophan of diminishing secretions when used in the form of a dusting powder is not marked and inferior to the other remedies employed for this purpose. Losophan is contraindicated in all acute inflammatory affections of the skin in which even when in weak concentration it readily produces irritation.—*Deutsche Medicinische Wochenschrift*, June 29, 1893.

The Diagnosis was Deferred.—“Madame,” said the doctor, in response to the earnest inquiry of his patient, “you are suffering from a complication of disorders, the nature of which can only be ascertained at the post-mortem.”—*The Medical Record*.

REVIEWS AND BOOK NOTICES.

System of Diseases of the Ear, Nose and Throat.—Edited by Charles H. Burnett, A. M., M. D., Emeritus Professor of Otology in the Philadelphia Polyclinic, Clinical Professor of Otology in the Woman's Medical College of Pennsylvania, aural surgeon to the Presbyterian Hospital, etc., Philadelphia, Pa. Vol. II, illustrated. J. B. Lippincott & Co., Phila., Pa.

The second part of this work, the first volume of which has already been reviewed in the Albany Medical Annals, continues and concludes the diseases of the nose and naso-pharynx, and then takes up the affections of the pharynx and larynx.

The same plan of having eminent workers in the various specialties write individual chapters on those subjects for which they are most noted, has been successfully carried out in the second volume also.

In a book of many authors where each has endeavored to out-strip his fellow collaborators in scientific accuracy, fulness of knowledge though clothed with brevity of expression, and in extent of original investigation, it is difficult to compare the merits of the individual articles. Without attempting, then, a critical analysis of the subjects presented, suffice it to say that each topic is admirably handled; the facts are presented clearly and concisely, and the latest methods of treatment advocated for the various affections are impartially and carefully discussed, while the older standard therapeutic measures are given their due prominence.

The work is valuable alike to the specialist and the general practitioner.

The Diseases of the Nervous System.—A text-book for physicians and students, by Dr. Ludwig Hirt, Professor at the University of Breslau. Translated with permission of the author, by August Hoch, M. D., assisted by Frank R. Smith, A. M., (Cantab.) M. D., assistant physician to the John Hopkins Hospital, with an introduction by William Osler, M. D., F. R. C. F. professor of medicine in the John Hopkins University, etc., with 178 illustrations. D. Appleton & Co., 1893.

The more recent views on the diseases of the nervous system by one of the most noted of living Germans on this branch of medicine, is here presented.

In writing this text-book, Professor Hirt has taken a decided departure, by grouping the various classes of diseases of the nervous system somewhat differently from what most authors have been accustomed to consider them.

The most noted changes in his classification, are: In removing *tabes dorsalis* from among the diseases of the spinal cord and placing it among those of the general nervous system, and in relegating *dementia paralytica* from the diseases of the brain to include it also among the affections of the general nervous system.

While these are decided innovations on general classification of these diseases, yet the position he assumes in making such changes is admirably defended and seems sufficiently strong to induce future writers to follow the same general plan.

The illustrations in the book are numerous and good, many of them being original.

At the end of each chapter there is inserted a bibliography of the most important recent works bearing on that particular subject.

The book is forcibly and lucidly written and is a worthy addition to our literature of the diseases of the nervous system.

PAMPHLETS RECEIVED.

The editor acknowledges with thanks the following pamphlets received.

Weekly Abstract of Sanitary Reports Issued by the Supervising Surgeon-General, M. H. S. Under the National Quarantine Act of April 29, 1878, Vol. VII (Nos. 1 to 53).

Transactions of the Medical Society of the State of New York. * For the year 1893.

Abnormal Man. Being Essays on Education and Crime and Related Subjects, with Digests of Literature and a Bibliography. By Arthur MacDonald, Specialist in the Bureau of Education.

Archives of the Cincinnati College of Medicine and Surgery.

A Few Clinical Cases Showing the Value of Oxygen with Nitrogen Monoxide in the Treatment of Pulmonary and other troubles. By E. C. Titus, M. D.

Address on Hygiene. By Prof. Samuel G. Dixon, M. D.

The Bile Salts, Urea, etc., as Therapeutic Agents. By Samuel G. Dixon, M. D.

Etude sur les Abces Chroniques Enkysters de L'Amygdale
par le Dr. Eug. Peyrissac.

Tetra-Ethyl-Ammonium. A New Solvent for Uric Acid
Discovered at the Edison Laboratory. By Frederick Peterson,
M. D.

Annual Report of the Supervising Surgeon-General of the
Marine Hospital Service of the United States for the Fiscal
Year 1892.

Quarantine vs. Sanitation. By W. T. Sedgwick, Ph. D.

Modern Scientific Views of the Cause and Prevention of Asiatic
Cholera. By W. T. Sedgwick, Ph. D.

The Mattison Method of Morphinism. By J. B. Mattison, M. D.

Peritonitis from a Surgical Standpoint. By A. V. L. Brokaw,
M. D.

The Technique and Management of Pelvic Surgical Cases. By
A. V. L. Brokaw, M. D.

Experiences in Pelvic Surgery. By A. V. L. Brokaw, M. D.

Traitment du Pied Bot Varus Equin par L'ablation de la Plu-
part des Os du Tarse. Dr. Just Lucas Championier.

De L'emploi des Essences et Surtout de L'essence de Cannelle
ou Cinnamo Comme Topique en Chirurgie par le Docteur. Just
Championiere.

The Curability of Narcotic Inebriety. By Dr. J. B. Mattison,
M. D.

The Etiology of Narcotic Inebriety. By J. B. Mattison, M. D.

Trional, The New Hypnotic; Its Use in Narcotic Habitués. By
J. B. Mattison, M. D.

Cocaine Inebriety. By J. B. Mattison, M. D.

Twenty-seven Years Addiction to Opium. Recovery, Relapse.
By J. B. Mattison, M. D.

Some Successful Results in the Treatment of Epilepsy. By
David Inclis, M. D.

The Azores as a Health Resort. By Herman Canfield, A. M.,
M. D.

The John Hopkins' Medical School. An Address by Professor
William H. Welch, M. D.

Medical Reports on Asiatic-Cholera, Cholera-Nostras and Chol-
era-Infantum.

The Profession of Medicine as Sketched from the Outside and
from the Inside. By S. W. Kelley, M. D.

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**Drainage of Ovarian Cysts where the Adhesions
are Such that it is Impossible to Remove
the Sac by Celiotomy.***

BY A. VANDER VEER, M. D., ALBANY, N. Y. .

In the diagnosis and treatment of ovarian cysts it is, I think, admitted by all that little more can be said in that direction than has already been accomplished. Without fear of contradiction it may be asserted that each operator has his particular technique that he follows with conscientious care, there may be some slight deviation in the method of emptying the sac, in applying the ligatures, or the use of the cautery to the pedicle and in closing the abdominal incision. This paper is not intended to touch upon such points, but now and then we meet with a case presenting such strong adhesions of the sac to the various organs, that the question is at times forcibly impressed upon us how far shall we go in making a prolonged operation without immediately resulting in such marked shock as to complicate seriously the patient's living many hours, or a death resulting, the latter being always detrimental to our would-be-successful operations in that particular neighborhood where the patient resides. The pathological conditions and changes, the symptoms that are associated with the formation of adhesions, in the developing

*Read before the Section in Gynæcology, and Abdominal Surgery of the First Pan-American Medical Congress.

of a case of ovarian cyst are, I am quite certain, at times passed over too lightly; that is the patient not infrequently does not lay sufficient stress upon the history of her case when detailing it to the family physician, or to the surgeon who is about to operate.

Localized pains are not sufficiently emphasized, slight accidents are forgotten, and adhesions have resulted, very often out of proportion to what seemed trivial causes and conditions.

Again, on the other hand, patients are not infrequently subjected to too many examinations, this being, quite often, the fault of herself or friends. They are desirous of seeing too many physicians, and an undue and severe handling of the case may bring about localized pain or peritonitis resulting seriously when the time comes for operation. There is often an additional and unnecessary nerve strain given to many patients by too frequent and too severe methods employed in the examination of cases of suspected abdominal tumors. Members of our profession have learned fully the danger that results from the use of the aspirator and trocar and in that direction patients have been relieved from the employment of measures that afterwards so frequently produce adhesion externally as well as suppuration within the sac.

Then again, cases may be examined with ever so much care; we learn all that is possible of the previous history, as to traumatisms that may have occurred, with or without marked evidence of local pain and peritonitis having supervened, and yet serious adhesions may be present. Some women will tolerate much more readily than others the pains that result in peritoneal adhesions. We know that no two cases go on precisely alike. The rapidity with which adhesions will sometimes form in one case, and the extent of their development is out of proportion to some other cases where the etiological factors have been equally as great. Very properly an operator of experience at the present time does not subject his patient to too long and too nerve-depressing examinations. I take it the experienced operator of to-day has not, by any means, given up the term exploratory incision

in such cases as present with an indefinite history, yet adhesion suspected, though the incomplete operation grows less and less as the number of his cases increase and he becomes more familiar with the operative procedure pertaining to the removal of tumors with many complications. To reach our subject a little more closely we have made our diagnosis in many cases and are satisfied that adhesions are present, probably of that variety too strong to yield to the pressure of the sponge or careful use of the hand, that many ligatures will be required and that possibly adjacent organs may be implicated to the extent that will make the operation exceedingly tedious and dangerous. An exploratory incision is decided upon and which, not infrequently, confirms our suspicions as to the grade and extent of these adhesions; the patient somewhat, and the friends in particular, are prepared for a severe and tedious operation, the judgment of the operator alone being relied upon to bring the case through successfully. I have not infrequently asked myself the question, when having to deal with such cases, and the patient has been subjected to an operation of an hour, one hour and one-half or two hours, nearly dying, or perhaps doing so within twenty-four or thirty-six hours, from the shock resulting from so prolonged an operation, would it not have been better to have shortened the time in some way, leaving portions of the sac, or the cavity formed from the adhesions to be drained and thus not carrying our patient too near the condition of exhaustion that results in immediate death? Will not drainage save more patients and bring our cases into a far more comfortable atmosphere of treatment, a larger percentage to go on to permanent recovery, although somewhat tedious, yet not producing that shock and depression upon the friends and neighbors as does death upon the table or a few hours afterward?

Take the following case as one for illustration, although not an ovarian cyst, yet having the form of adhesions to large intestines that I wish more particularly to emphasize in this paper.

CASE I.

Miss McD., aged forty, unmarried, housewife by occupation; entered St. Peter's Hospital May 11, 1887, giving the following history: I had had her under observation for nearly ten years, during which time she had enjoyed very good health, with the exception of an enlargement of the lower portion of the abdomen, on the left side. When first noticed it was about the size of a small lemon. This increased very gradually without giving her very much pain at any time. Up to two years ago she had suffered no serious inconvenience and at that time I urged her to have an operation. The clinical history, direct physical examination, symptoms, all indicated it to be a case of sub-peritoneal fibroid, with probable attachment to the left side of the uterus. She had, however, always objected to an operation. During the past two years she has suffered much more pain and the tumor has increased somewhat rapidly; now, at the present time, filling the entire abdomen, pressing up against the diaphragm, pushing the intestines and contents of the abdominal cavity back into the lumbar regions and behind the liver and above the spleen. One year ago she was quite ill with an attack of localized peritonitis. She is now desirous of having an operation, knowing that the obstruction to the bowels, the pressure upon her stomach, depriving her of food, all of her discomforts convincing her and her friends that in her present condition she cannot survive long.

Operation May 12th, 1887. The tumor was exposed and a distinct pedicle found connected with the left cornu of the uterus, capable of being ligated, but extensive adhesions were discovered connected with the omentum, firmly attached to the ascending, transverse and a portion of the descending colon. The tumor was found undergoing cystic degeneration, the loosening of the adhesions became very tedious, it took a long time to free them from their attachment to the tumor, and in fact in some places the walls of the tumor were dissected off, hemorrhage controlled, the surfaces of the portion of the sac brought together, leaving a mesenteric attachment with the

intestine. Class drainage tube, with gauze packing employed. No hemorrhage indicated, and but a moderate amount of serum drained.

Operation occupied one and one-half hours. Patient recovered fairly well from the effects of the anæsthetic—ether being given—became thoroughly conscious, but died from absolute exhaustion at the end of thirty-six hours.

In the light of experience gathered from other cases since, I realize I could have shortened this operation, bringing a portion of the cyst wall, with the adhesions, into the wound, stitching them there and draining. I know of no other abdominal work that presents with it so great anxiety as the loosening and breaking up of these strong adhesions, particularly when any portion of the intestinal tract is implicated.

Resecting portions of the small intestines becomes possible, yet great care must be exercised here in seeing that the mesenteric attachments are preserved. But when large intestines are involved resection or anastomosis becomes very much more serious. Adhesions to the solid structures situated in the abdominal cavity give us sufficient anxiety without doubt, but can be managed much more successfully than when we encroach upon the calibre of any portion of the intestines.

It is fortunate for the operator that these cases are not many in number, it is fortunate for us that they are growing less, yet, now and then, as I have stated, for some unexplained reason, adhesions form very quickly, much more so in some cases than in others. Some patients have a pain, not particularly distressing to them, not putting them to bed altogether, but it is the pain, nevertheless of adhesive peritonitis, and we find cases where the clinical history is out of all proportion to the serious adhesions that present. Neglected cases of ovarian cyst will yet present occasionally, and the question seems so pertinent to us as operators, how far shall we prolong the operation, to what length shall we carry it? Must we not exercise the greatest care in taking into consideration the strength of our patient and is it not better to cut short an operation, and, if possible, drain a portion of the

cyst wall, with adhesions, than to pass too many anxious hours in carrying our patient out from the condition of exhaustion, or, sadder still, to friends of the patient and interest of operative surgery, witness a death from our over-work in attempting what is really too much for her to bear?

Although this procedure of drainage it is a somewhat tedious one yet I feel to emphasize that it carries our patient out from the domain of immediate death, and thus does not bring to the friends and relatives that depressed condition of the mind, that aversion they ever afterwards have to any form of surgical interference.

Dr. John Homans, as well as many other able operators, has given us a record of cases in which it was found necessary to stitch the sac (owing to the severe adhesions), into the abdominal wound and drain. Can we, however, say or admit, that our text-books have placed sufficient importance upon this line of procedure?

I cannot just now give the relative percentage between my cases of drainage and completed operations, but will be able to do so very soon in another paper, yet to illustrate somewhat more fully my present subject I desire to speak of the following cases somewhat briefly:

CASE II.

Mrs. O. F., aged forty, married, housewife by occupation, mother of two children. Presented a very good record of health. Entered the Albany Hospital October 6th, 1887, having been seen only recently by Dr. Robert Selden, of Catskill, N. Y., and who advised an immediate operation.

Records of the hospital state that four years previous she first noticed a tumor located on the left side and supposed to be about the size of a child's head. It grew slowly until June, 1887, and has since then increased very rapidly. Patient has lost much in flesh and strength, bladder irritable, abdomen much distended, tumor fluctuating, and a hard body is felt over the surface of the vaginal vault. Patient has never been tapped. Has received several traumatisms and suffered much from localized peritonitis. Abdominal incision was made

and thirteen pints of very offensive, liquid pus removed. The cyst wall was so adherent to the viscera removal of the sac became impossible, and it was found necessary to stitch the opening in the sac into the abdominal wound by continuous suturing, yet even in doing this it was impossible to hold the sac it was so friable and rotten that at the point of union, where the drainage tube was introduced, the cyst wall was lost sight of. Drainage was attempted, but was not so thoroughly successful as could be wished. Owing to some family distress she was obliged to return home the next day. The wound soon closed after that and on November 9th, her physician, realizing that the sac was filling, aspirated, removing a pint of liquid pus. Between that time and January 23, 1888, she was tapped twice, twenty pints of pus being removed in all. She was now urged to have permanent drainage established, and the remaining portion of the cyst washed out, but she was so unfortunately situated that it was impossible to carry out the suggestion. She was aspirated again, but ultimately died from an attack of pneumonia.

This case, could she have had proper nursing and thorough draining kept up, I have no doubt would have made a permanent recovery. I feel quite certain that had we persevered in attempting to remove the adherent cyst she would have died early from shock.

CASE III.

Mrs. C. H., aged fifty-five, married, native of Germany; housewife, residence Adams, Mass. Patient well as a girl; first menstruated at nineteen; always healthy; had had ten children. Present trouble began seven years ago—at that time the menopause occurred. About three years ago she began to increase, most noticeably about the waist; last summer she experienced pain in the abdomen for first time. Appetite good, bowels regular. Admitted to Albany Hospital December 8th, 1889. After careful examination diagnosis made of ovarian cyst with probable adhesions due to the local peritonitis she had evidently had. Operation was decided upon and incision made December 9th, in the usual manner, but

the cyst was found thoroughly adherent to the parietal peritoneum and to the omentum and large intestines to that extent that it was impossible to remove it. The cyst was stitched into the abdominal wall by continuous sutures, patient making a good recovery, after continuous drainage for about ten weeks, the sinus remained permanently closed and she recovered her health sufficiently to return to her household duties. This patient remained well up to January 1893, when she again began to enlarge and now presents with a cyst about one-half the size of the former one. I am of the impression that the other ovary has taken on a development of cystic tumor and that we have here an embarrassing situation as to whether it will be possible to remove it even if it possesses no adhesions of its own.

CASE IV.

Presents a condition bearing more particularly upon this paper, that of Mrs. J. McD., married, mother of several children; a patient of Dr. H. E. Mereness, of Albany, and who gave a history of an abdominal tumor of more than three years' growth. She was a very fleshy woman and it was exceedingly difficult to make out the diagnosis, yet from the history it was believed she was suffering from either a fibro-cystic or a multilocular ovarian tumor. Owing to pressure against the diaphragm, owing to obstruction of the bowels, and oedema of the lower extremities, it was decided to operate. January 10th, 1892, the operation was done; we found a thick cyst wall with three large cavities, containing a brownish-looking fluid, thick in character, like that which we not infrequently get from multilocular ovarian cysts, and on breaking down the partitions I was able to evacuate the contents, so as to bring the abdomen down to about its normal size, but I found the most extensive and serious adhesions possible. The large intestines were severely implicated, as were also portions of the abdominal parietes and when drawn upon dented the external appearance of the abdominal wall. With my hand I cleaned out the contents of the cysts as thoroughly as possible, breaking down partitions, brought the edges of the cyst

well up into the abdominal wound, stitched with continuous suture, placed in two glass drainage tubes, washed out thoroughly with a solution of mercuric bi-chloride at times, occasionally using carbolic acid, but mostly a solution of boric acid, continued drainage, and in good season had the satisfaction of seeing this patient make a complete recovery, although she was under the careful treatment of Dr. Mereness and myself for a period of between three or four months. She is now well and in every way able to attend to her household duties.

I am certain that had we gone on and prolonged the operation that this patient would have been placed in serious jeopardy as to her recovery, and I feel that it would have really been impossible to have detached the adhesions.

CASE V.

Mrs. N. O., aged sixty-two, housewife by occupation, under care of Dr. Barry, of Schenectady. Admitted to Albany Hospital Nov. 11th, 1892. Married, mother of four children; menopause at fifty. No unusual personal or family history. Says she did not notice any enlargement of the abdomen until one year ago when she began to increase quite rapidly; has not suffered any particularly pain, appetite very good; some bladder irritation but the bowels have behaved well. For the past two or three years she has frequently been joked by her friends as to her growing fleshy. Examination of the urine shows the kidneys to be in a healthy condition. No swelling or oedema of lower extremities. Pulse about eighty, but slight rise in temperature. Operation November 12th, 1892, believing the case to be one of multilocular ovarian cyst. On entering the sac I drew off nearly three quarts of purulent-looking fluid. There were no pelvic adhesions and I had no difficulty in reaching a fairly good pedicle, associated with the left ovary, but on passing my hand up along the cyst wall, on each side, and attempting to reach to the superior surfaces of the cyst, I found the adhesions so serious, and so firmly attached to the transverse colon, as to make it soon evident it would be impossible to loosen them with any degree of safety.

I therefore emptied the cyst walls thoroughly well, it really being a multilocular ovarian cyst, closed the openings in the sac, reached the pedicle, ligated it in two places, made a section between the double ligatures, drew the lower portion of the cyst wall well up in to the incision, stitched carefully to the abdominal wound, re-opened what was left of the cyst, cleaned out thoroughly, placed a glass drainage tube down in the cavity of the pelvis, it draining quite successfully for three or four days, and was then removed, also placed two glass drainage tubes, packing well around them with iodoform gauze, in the remaining portion of the cyst wall, and then continued thorough drainage afterwards. This patient made a good recovery and is now able to get out and about, enjoying life with much comfort—a great joy to her anxious children.

CASE VI.

Mrs. C. M., aged thirty-seven, married, housewife by occupation, came under my observation April 20th, 1893, with the following history: Sister died of phthisis at about the age of 30, otherwise family history good. Patient never strong; has had six children: no miscarriages; always regular in menstruating. Seventeen months ago had pleurisy, with effusion of the left side, was aspirated by Dr. Macdonald, of Schenectady, and, as she said, a large amount of fluid removed. From this she made a good recovery, but about this time she noticed an enlargement of the abdomen. In Feb., 1893, the abdomen was aspirated and about three quarts of fluid removed. Examination reveals a well-defined tumor in the right side of the abdomen filling the pelvis and extending up above the umbilicus, fluctuates somewhat distinctly, but gives a sensation of being held firmly in position. Diagnosis was made of tubercular peritonitis, with fluid, probably held in pockets by adhesions, between folds of intestines. Since her last aspiration she has gradually failed and has lost in strength until now her general health is somewhat seriously effected. Exploratory incision advised, to be followed by permanent drainage. Section made May 3d, 1893. Quite an amount of

ascetic fluid was removed and then an ovarian cyst connected with the right ovary, holding nearly a quart of fluid, was discovered. Here the adhesions to the caecum and the sheath of the iliac vessels, on the right side, were so firm, with adhesions to the transverse colon and stomach, which were brought down below the umbilicus, that I could do but one thing and that was to bring the cyst walls up into the incision, stitch and drain. Drainage was carried out successfully, and patient has made a good recovery.

CASE VII.

Mrs. D. Y., aged fifty, housewife, referred to me by Dr. Moon, of East Springfield, N. Y. Family history exceedingly good: thorough absence of any malignancy, or tubercular disease; both father and mother still living and in fairly good health. First menstruated at eleven and has always been regular. Married at the age of twenty-four; never pregnant. Ceased to menstruate at the age of forty. When eighteen years of age was thrown from a horse and thinks she was never quite as well afterwards. Had scarlet fever when twenty-three years of age. Fifteen years ago she suffered some pelvic distress and consulted Dr. Thos. A. Emmett, of New York City, who gave her the diagnosis of fibroid tumor of the uterus, and advised her to let it alone. Eight years ago was thrown from a wagon, striking upon her buttocks and receiving a severe jar. Was weak for a long time afterwards, feeling much soreness in what she supposed to be the fibroid; however, remained in very good health up to December, 1892, when she noticed an enlargement of the abdomen low down and on the left side. March, 1893, this had increased very decidedly. About the first of June she had very severe attacks of pain for three days and nights, suffering a great deal, and has since had several such attacks, but thinks they have gradually decreased in severity. She says the growth has enlarged very slowly since she first discovered it. Has suffered much inconvenience from constipation, more especially since noticing this last enlargement. I saw her August 1st, 1893; was able to locate a fibroid tumor on the

right side of the pelvis, low down, and about the size of a goose egg; the uterus was drawn up to the left, the broad ligament on that side seemed contracted, and the uterus fixed at that point. Above the symphysis and extending up to the xyphoid cartilage, filling the lumbar regions thoroughly, could be made out a fluctuating tumor, evidently ovarian in character. I advised an immediate operation in view of her general emaciation, her inability to take much food, pressure upon the kidneys and other important organs being such as to give her great inconvenience and distress. She had remembered thoroughly well Dr. Emmett's advice and was reluctant to have any operative interference, but when the case was fully explained she seemed more willing. She was detained in various ways and did not enter the Albany Hospital until August 29th, 1893. After proper preparation operation was performed the next day, the 30th. I had anticipated meeting with adhesions, her history being in that direction. Had no trouble in exposing the sac and emptying its contents—a brownish-looking fluid—but found, as I withdrew about two-thirds of the sac that it was firmly adherent to the rectum, including sigmoid flexure, dipping down into the pelvis on the left side and also adherent to the sub-peritoneal fibroid, which had its relation in connection with the right cornu of the uterus. After thorough examination I found that it would be more than dangerous to attempt to dissect the sac, which was held so firmly by strong adhesions. I therefore, stitched the deeper portions of the sac to the abdominal incision, removed that portion which was free, emptied the remaining part thoroughly, being in size not more than would hold a pint, placed in gauze drainage, also a glass drainage tube to the deepest portion—operation not being a prolonged one. Patient has gone on uninterruptedly with a train of satisfactory symptoms, doing as well as could be desired.

I am fully aware that every operator must, at the time of operating, be the judge as to how far he may go in the removal of tumors associated with strong adhesions. In view

of the very excellent system of drainage that can now be employed, in view of the impression that prevails among the friends of the patients that they ought not to die upon the table, or from the immediate effect of shock, only in very rare instances, I am prone to believe that we should be somewhat conservative in our course in these cases, yet I am frank to admit that it is much more pleasing to the operator, much more a test of surgical skill perhaps to remove all that which he has attacked as a pathological condition, and bring his patient into as normal a state as possible. In carrying out drainage in these cases the patient should be put in care only of a conscientious, judicious nurse. A glass drainage tube should be employed and made to reach to the deepest portion of the cyst, or whatever remains of the cyst walls and adhesions. A rubber drainage tube cannot be relied upon at first. Gauze packing is much preferable to the latter. We are bound to respect pelvic adhesions when they implicate the sheath of important vessels resting there, and gauze drainage is the safest. Deep-seated pelvic hemorrhage is not always so easily controlled, and has troubled more than one operator when he has encountered it. No one will deny but that abdominal incisions can certainly be treated with a greater degree of comfort, than where the large intestines are implicated.

We have seen much in days gone by as to the use of the thermo cautery and preparations of iron in controlling hemorrhage, resulting from the breaking up of adhesions, and yet I would like to get the honest expression from the operators of to-day as to how often these two agents are made use of. Ligatures and drainage tube in one form or another, beyond a doubt are the best agents we have for controlling hemorrhage in these cases where we are obliged to separate extensive adhesions. I am not unmindful of sapræmia and septic conditions in cases of incomplete removal of the sac, and I do not want to convey the impression that I would in the least surrender any case that it is possible to make a complete operation in, I am fully aware that drainage carries with it some

uncertainty, especially in the effort to get consolidation by collapse of the walls of the sac, and where the detritis is to be removed in larger portions from time to time. I would advocate this line of treatment only in such desperate cases as where we feel our patient is likely to be carried beyond the point of possible recovery, and to die in shock, because of the too severe tax made upon the weakened vitality of the system. These cases of drainage require the utmost care and watching as to general treatment; diet, sanitary surroundings, all becomes of the greatest importance where the necessity of drainage is the only method of procedure.

The Hot Pack in Railroad Surgery.

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Two cases have occurred in my practice lately that so fully illustrate the action of the hot pack in minor surgical work that I deem it advisable to report them, not with the idea of advancing any new method of treatment, but to urge its use in railroad surgery particularly.

The hot pack is not a new thing by any means, but I don't think it is used as often as it should be in this line of cases. Some authors speak of it but more do not. In railroad cases there is a special indication that is fully met by the hot pack. When we consider the bruising and tearing of tissue that occurs in all these cases and think of the action of the heat and moisture of the hot pack antiseptically applied, we see every indication fulfilled. Bruised and lacerated tissue will live by means of the pack that, without it, would be lost.

In railroad cases the tissue is torn and bruised, the wound filled with dirt, and on first seeing a case it is impossible to tell just the full extent of the injury. If these cases are cleaned up and dressed antiseptically with the hot pack for twenty-four hours much more can be learned of the true condition of the wound than when the injury occurs. The two following cases will illustrate.

The first case, T. M., aged about fifty, received a crushing injury to the thumb by heavy bar of iron falling on it while at work repairing an engine. When first seen the end of thumb was crushed and torn, the soft tissue and nail stripped forward over end of bone. Two deep lacerations extended from end of thumb down on each side of the joint. Tissue cold and apparently lifeless. At first thought amputation necessary, but I decided to try first the hot pack.

Cleaned the thumb and wound with bichloride solution, 1-2000, and after trimming up the nail dusted on powdered iodoform and fixed the thumb on anterior splint to hold it in place. Then put on a dressing of bichloride gauze and bandage. Over this put flannel wrung out of hot water and directed that the flannel be heated every hour or as often as it began to cool.

Next day the bruised tissue looked much better and patient could feel my touch which he could not at first dressing. Hot pack discontinued and wound dressed with a moist bichloride dressing. Perfect result obtained, and the man has good use of his thumb.

The second case was of the same nature but more severe. T. F., aged 21, received his injury while coupling cars. First joint of thumb torn off, leaving the anterior surface. This stripped back to the hand and hung by a small pedicle. Back of thumb bruised and torn; end of bone exposed. Considerable hæmorrhage. In this case I drew up the anterior flap after removing several small particles of bone which were attached to it, and after cleaning thoroughly, stitched to tissue on the back of the thumb. Flap cold when I had it in position and did not think it would live. Dressed as in case 1. The flap lived and went on to good union without suppuration. The man has now a very good stump.

These two cases I report not to advance a new line of treatment as I say, but simply to urge its use for the first twenty-four hours in such cases as the above.

By its use we can often save tissue that seems almost lifeless, particularly in injuries received on the railroad. By using

the hot pack we can often give the man a much better and more useful hand than by using the knife.

A New Method of Direct Fixation of the Fragments in Compound and Ununited Fractures.

Senn, impressed with the defects of previous methods of securing and retaining accurate apposition in cases of compound and ununited fractures, advocates (*Annals of Surgery*, 1893, vol. xvii., No. 2) the employment of hollow perforated intra-osseous splints or of bone ferrules. The author objects to the wire suture, because it frequently fails to maintain apposition, because he believes that in some cases the wire induces necrosis of the bone, and because a foreign body is thus permanently retained at the seat of fracture. Metallic spikes and screws are dismissed with the mere mention of the method. Ivory cylinders and clamps have proved successful in practice, but the ivory is less rapidly absorbed than bone, and in addition the presence of a solid cylinder in the medullary cavity is an objection. The hollow perforated intra-osseous bone-splint is equally efficient in securing fixation, and in addition the lumen soon becomes filled with valuable bone-producing material, and the new blood-vessels may reach the point of fracture through the numerous perforations.

It is recommended to make these cylinders of the long bones of chickens, turkeys, or rabbits. The medullary cavity is to be increased in size by the use of a small, round file, and the perforations made with a drill. The length of these splints should vary from one to three inches.

In cases of very oblique fracture the bone cylinder will not retain the fragments securely. For these cases Senn recommends the use of the bone ferrule. For the humerus and femur of the adult the ferrule should be prepared from the femur of the ox; for children the same bone of a smaller animal should be selected. For the tibia the corresponding bone of the ox is selected on account of the similarity in

shape. It is recommended to make the section of bone with a sharp saw, from one-quarter of an inch to an inch in width, as desired. The medullary cavity is enlarged by means of a round file, until the thickness of bone does not exceed one-sixth of an inch. Wide ferrules should be perforated.

The cylinders and ferrules are sterilized by boiling and subsequent immersion in sublimate alcohol 1:1000, until ready for use. The ferrule must be large enough to pass easily over the bone, otherwise it is apt to be broken. The ferrule is first slipped over the most accessible fragment, and, after reduction is accomplished, is passed along so as to engage the second fragment. At this point great care is needed to avoid bending the bone at the seat of fracture, which might break the ring.

In the use of the cylinder or ferrule a plaster-of-Paris dressing is to be applied to the limb to maintain immobility. A fenestra may be made at the seat of the wound to permit of dressing.

The following conclusions are added :

1. Direct fixation of the fragments is indicated in all compound fractures in which perfect retention cannot be secured by similar measures, and in the treatment of ununited fractures requiring operative interference.

2. This method is also justifiable in the treatment of certain forms of subcutaneous fractures in which reduction and retention cannot be accomplished without it.

3. Free exposure of the fragments in compound fractures secures the most favorable condition for thorough disinfection.

4. Perfect reduction and direct fixation of the fragments are the most reliable prophylactic measures against delayed union, non-union and deformity.

5. A compound fracture should be regarded in the same light as an injury of the soft tissues, and should be treated upon the same principles, viz., accurate coaptation of the different anatomical structures, and perfect retention by direct means of fixation, aided by an efficient external support.

6. Bone suture, metallic, bone and ivory nails do not furnish the necessary degree of support and immobilization in the direct treatment of fractures characterized by strong tendency to displacement.

7. The solid, intra-osseous splint of ivory or bone, as advised by Heine, Langenbeck, and Bircher, is objectionable because it interferes with the ideal production of the intermediate callus, and its spontaneous removal is beyond the absorptive capacity of the tissues.

8. The hollow, perforated ivory or bone cylinder, devised by the author, answers the same mechanical purpose without the objections which have been charged against the solid cylinder.

9. The safest and most efficient means of direct fixation of oblique fractures is by a bone ferrule, which must be applied in such a manner that it surrounds both fragments.

10. Such a circular, absorbable, direct splint prevents to perfection lateral and longitudinal displacement.

11. Rotation of the limb below, and angularity at the seat of fracture must be prevented by a carefully applied circular plaster-of-Paris splint.

12. For fractures not requiring drainage the entire wound should be closed by buried and superficial sutures, as the bone ferrule is removed by absorption.

13. In suppurating wounds the bone ferrule should not be moved until direct fixation has become superfluous by the formation of a sufficiently firm union between the fragments.

14. The external splint should be applied in such a manner that it does not require a change throughout the entire treatment, permitting at the same time access to the wound, should this become necessary.

15. Direct fixation of a fracture, combined with perfect immobilization, brings the different anatomical structures of the broken bone permanently into their former normal relations, preparing the way for early initiation and speedy consummation of an ideal process of repair and the realization of a perfect functional result.

16. Should future experience demonstrate that bone is not sufficiently absorbable, the same kind of ferrules can be made of partially decalcified bone or chromicized catgut.—*The Am. J. of the Med. S.*

The Postponed Meeting of the International Medical Congress.

The undersigned chairman of the American National Committee of the International Medical Congress, which was postponed from September 24th, on account of cholera prevailing in Italy, has been notified by the secretary-general that the congress will be held at Rome from March 29th to April 5th, 1894. Instructions and documents relating to the journey, etc., are promised for the near future.

Yours very respectfully,

A. JACOBI, M. D.

110 W. 34th street, New York, November 17th, 1893.

Meeting of the Tri-State Medical Society.

The next meeting of the Tri-State Medical Society will be held in Atlanta, on the second Tuesday in October, 1894, and the proposition to change the name to "The South-Eastern Medical Society" will be considered. This will embrace the territory east of the Mississippi and south of the Ohio.

Fraternally,

FRANK TRESTER SMITH,

CHATTANOOGA, Tenn.

Secretary.

Recovery of Damages for Miscarriage.—The Superior Court of New York city has ruled that when a married woman is so injured, through the negligence of another person, as to miscarry, her husband can recover damages for the loss of the child. In the case on trial the damages were assessed by the jury at \$2,250.—*Med. Record.*

Emergency Hospital at the World's Fair.—There were treated at the World's Fair Emergency Hospital 18,500 cases, and there were twenty-three deaths at the institution.—*Med. Record.*

THE
Albany Medical Annals

JOURNAL OF THE

Alumni Association of the Albany Medical College.

HOWARD VAN RENSSELAER, PH. B., M. D., EDITOR.

VOL. XIV.

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No. 12.

ANNOTATIONS.

Experimental Researches on the Comparative Absorbing Powers of Stomach and Rectum.—At a recent meeting of the Societe de Therapeutique, reported in the Bulletin General, M. Main presented, on behalf of himself and M. Lemanski, the result of comparative investigations made, under M. Dujardin-Beaumetz, on the absorption of certain medicaments by the stomach and by the rectum. "One of us," he states, "being pressed for time, we instituted our experiments only with salicylate of sodium, salol, antipyrin, iodide of potassium, terebinthine, and methylene blue. After having determined the integrity of the subjects under observation, we first administered by the mouth a quantity of the medicament, the dose being adjusted with great precision. Two or three days after every trace of the medicament had disappeared from the urine, we placed in the rectum of the same subject a hollow Kugler suppository containing the same dose of the product."

Taken by the mouth, the salicylate of soda manifested itself in the urine at the end of thirty-five minutes; and at the end of twenty-five minutes when taken by the rectum.

We were enabled to determine the passage of antipyrin forty minutes after stomachal ingestion, and thirty minutes after rectal absorption.

We found iodide of potash in the saliva at the end of fifteen minutes, giving the medicament by the mouth; and at the end of ten minutes, giving it by the rectum. Here we must observe that the rectal administration of iodide of potash is extremely painful, and the subject of experiment is almost at once forced to expel suppository. Accordingly, less than one gramme (the adopted dose) was absorbed by the rectum.

Methylene blue imported a coloration to the urine within forty minutes after oral administration, and at the end of an hour and fifteen minutes when given per rectum.

Salol, taken by the stomach, manifested itself at the end of thirty minutes; taken by the rectum alone, after the lapse of four hours. This was to be anticipated, taking it for granted that the salol does not split up in the digestive tube, save under the alkaline influence of the pancreatic juice.

As for the terebinthene, it required forty-five minutes to communicate the odor of violets to the urine when administered by the stomach. Given by the rectum it never gave evidence of its characteristic odor.

“One of us,” adds M. Main, “had attempted some time previously the employment of suppositories of santal. This product was not absorbed, and produced only an intense rectitis.”

From these experiments it follows that all substances may in general be administered by the rectum. Certain products, however, such as the terebinthine and the santal, would not be absorbed.

The speaker added that amongst the products directly soluble, which had been tested, the greater number pass into the circulation more quickly by the rectum than by the mouth. This is a new confirmation of the researches of Demarquay.

In the discussion which followed, M. Patein observed that salol decomposes, not only under the influence of the pancreatic juice, but also in the circulation.

M. Main: We simply wished to emphasize the fact that the decomposition of the salol in the rectum must proceed less rapidly, the secretion not being alkaline at the lower end of the digestive tube.

M. Catillion: This question of the alkalinity or acidity of the rectum has been controverted. In the course of investigations which I made at the laboratory of Vulpain on alimentation per

rectum—investigations which have been here discussed and which solved this question—I was led to look into this phenomenon, and very often I found an acid reaction in the rectum.

M. Constantin Paul: I believe the physiological rectum should be alkaline, but I have often determined its acidity in children suffering from green diarrhœa.—*Med. Review*.

Dilatation of Impermeable Stricture of the Urethra by Water-Pressure.—The following method of procedure has been recommended in cases of impermeable stricture of the urethra:

The urethra is distended, by means of a syringe, with a mixture of equal parts of a four per cent solution of cocaine and of 1-1000 corrosive sublimate. The fluid is prevented from running out when the syringe is withdrawn, by compressing the urethra immediately behind the glans between the forefinger and thumb of the right hand. A catheter or bougie is then introduced while the fluid is still kept in the urethra and one is surprised at the comparative ease with which the instrument gets past the stricture. This is said to be due to a funnel shaped dilatation of the stricture brought by the pressure of the fluid. We are inclined to believe that the action of cocaine in reducing the congestion of the urethral mucous membrane is an important element of success in this method which so far as the use of cocaine is concerned, resembles the one employed by a Parisian practitioner, Dr. Marx. —*The Medical Week*.

To Stain Tubercle-Bacilli.—Czaplewski (Arb. aus dem Path.-Anat. Inst. zu Tübingen, 1892, B. i, H. 3; Monatsh. f. prakt. Derm., B. xvii, No. 4, P. 174) recommends the following procedure: The sputum is first spread in a thin layer upon a slide, dried in the air, and carefully passed through the flame of a Bunsen burner. Then carbol-fuchsin is added, and heated until the vapor of steam arises, when a solution constituted as follows is dropped upon the slide obliquely, until the surface is cleared; hydrochloric acid and sodium chlorid, each $2\frac{1}{2}$ parts; distilled water, 100 parts; a solution is made, and alcohol, 500 parts, added. The slide is then washed with water, permitted to dry in the air, and finally a drop of some immersion-oil added that can be readily removed by xylol.—*Med. News*.

Passage of a Thermometer through the Alimentary Canal.—The swallowing of a clinical thermometer by an insane patient at Besancon recently was not without its usefulness. The

thermometer, a self-registering one, was entirely of glass and 113 mm. long. No disturbance was noticed, and nine days later it was passed at the anus. The scale registered a maximum temperature of 38.7° centigrade, but a subsequent verification of the instrument reduced this to 38.1° . The axillary temperature which had taken twice a day during the passage of the thermometer was never higher than 37.2° .—*St. Louis Medical and Surgical Journal*.

Phenacetine in the Treatment of Pneumonia.—Practitioners who are the most conservative in their views concerning the medication to be employed in acute inflammatory fevers, and especially unite in deprecating the use of heart depressants, show a preference for phenacetine as an antipyretic. At the meeting of the American Medical Association in June last, Dr. Bailey said that phenacetine "could be safely used as an antipyretic in pneumonia," and pronounced it to be "as efficient as the external application of cold water, and no more depressing to the heart." In this same discussion, Dr. Beatty said: Phenacetine is not objectionable as an antipyretic, because it does not affect the heart unfavorably." Dr. Beatty, by the way, believes that in pneumonia, venesection is never indicated. He says that sedatives are only exceptionably required in pneumonia, and gives the preference to phenacetine when such medication is indicated. He employs the same remedy in the treatment of the pneumonias of the aged, advising its use, in moderate doses, when the temperature rises above 102° . As cardiac tonics, he entertains a preference for quinine, strychnine or sparteine, to be administered as needed. Other writers cite the excellent effects of phenacetine in quieting the pain and restlessness of pneumonia, and inducing that condition of gentle diaphoresis which promotes refrigeration, and is thought by some observers to hasten resolution. Cases of pneumonia are reported in which, when gastric or rheumatic symptoms were present, the remedy was advantageously united to salophen, the new antirheumatic.

Crying of Children.—The cry of children, according to Dr. E. C. Hill, in pneumonia and capillary bronchitis is moderate and peevish and muffled, as if the door was shut between child and hearer. The cry of croup is hoarse, brassy and metallic, with a crowing inspiration. That of cerebral disease, particularly hydrocephalus, is short, sharp, shrill and solitary. Marasmus

and tubercular peritonitis are manifested by moaning and wailing. Obstinate, passionate and long-continued crying tells of earache, thirst, hunger, original meanness, or the pricking of a pin. The pleuritic is louder and shriller than the pneumonic, and is evoked by moving the child, or on coughing. The cry of intestinal ailments is often accompanied by wriggling and writhing before defecation. Exhaustion is manifested with a whine. Crying only, or just after coughing, indicates pain caused by the act. The return or inspiratory part of the cry grows weaker toward the fatal end of all diseases, and the absence of crying during disease is often of graver import than its presence, showing complete exhaustion and loss of power. Loud screaming sometimes tell of renal gravel.—*The Am. Practitioner and News.*

A Study of Aseptic Pepsin.—Dr. Adolph Gehrmann believes that the least that can be required of such pepsins is that they shall contain no living or viable organisms; partial sterility will not suffice. Theoretically it may be argued that in the preparation of predigested food, the milk or other ingredients of the food must remain uninjured by bacterial growth; that when added to sterilized milk the milk will remain sterile, or when administered as pepsin no bacteria are placed in the stomach to menace an already diseased digestive tract. The pepsin and the prepared foods, administered under the same exact technique that preserves sterility of culture material in the laboratory, would offer valuable results. Practically such administration is impossible; the opportunities and chances of infection are numerous. The ordinary means of sterilization cannot be employed in the preparation of pepsin, which is a highly sensitive unorganized ferment, becoming inactive after a short exposure to a temperature of 128° F., and being injured by contact with most antiseptics, alcohol soon rendering it inert. Being an albuminous body, it offers an excellent nutrient material for bacterial growth. Heat sterilization can only destroy a small part of the organisms contained without destroying the pepsin. Evaporation in a vacuum will not sterilize pepsin in solution, because bacteria readily resist absence of oxygen, and some even, being anaerobic, would enjoy the new condition. Sterilization by gases has also been proposed, more particularly by sulphur dioxide gas, but the difficulty of effectual application makes it of doubtful value. Eleven samples of aseptic pepsins were examined, and it was found that in the

agar tubes cultures regularly appeared; they were also obtained from the flasks of sterile water, and milk became decomposed in from two to ten days. In a few instances determination of the digestive power of the samples were made. It was found that they were usually of very high grade, products of unusual activity from which most of the dirt usually present had been removed; they are clean but not aseptic preparations. He concludes: 1. Aseptic pepsin is only of value in theory. 2. It is impossible to sterilize pepsin by the usual methods. 3. The aseptic and similar pepsins now offered to physicians are not aseptic, viable cultures being regularly obtained from them. 4. The pepsins in question are simply clean preparations of high-grade dissolving power.—*The North Am. Practitioner*.

Creasote in Tuberculosis Pulmonum.—Dr. J. T. Whitaker has carefully reviewed the literature of this remedy. He concludes: 1. Creasote, when pure, is harmless. 2. It has no direct action upon the tubercle bacillus. 3. Tuberculosis pulmonum is chiefly a secondary infection by a steptococcus. 4. Creasote has no direct action upon this steptococcus, hence none whatever upon hectic fever. 5. It destroys lower organisms, especially those which produce fermentation, without affecting the process of digestion. 6. The beneficial action of creasote, which is undeniable in most cases, is chiefly, but not wholly, upon nutrition.—*Therapeutic Gazette*.

Salol as an Intestinal Antiseptic.—Dr. E. Mansel has found in cases of duodenal indigestion that a preliminary four or five-grain dose of calomel, followed in an hour by ten-grain doses of salol every four hours “acts like a charm.” In infective diarrhoea this remedy is exceedingly useful. In ordinary diarrhoea there are few remedies which will more speedily check the flow and pain than ten-grain doses of salol. In typhoid fever he uses this remedy, not so much with the idea of combating the specific poison, but of cleaning and keeping clean the intestinal tract, and so subduing the irritation of the glands of Peyer’s patches and other ulcers there, and that caused by the secretion from these ulcers in the intestine. It also prevents the excessive formation of wind, which is sometimes so vexatious a trouble to the patient. The temperature is generally brought down a degree or two, and there is abundant perspiration. No bad

effects were noticed in regard to delirium. The amount given was ten grains, suspended by means of compound tragacanth powder, every four to six hours, and during the last week three times a day, after food.—*Practitioner*.

The Anti-emetic Action of Menthol.—Dr. B. Blondel, in *Nouveaux Remedes*, reports a series of investigations regarding the anti-emetic properties of menthol. He states that, in small doses, frequently repeated, it stimulates the sluggish muscular action of the stomach; that nausea and gastric spasm can be stopped at such a point that even ipecac loses its power of producing emesis. This property of menthol makes it of value in the treatment of dysentery by ipecac, when a fifth of a grain of menthol may be administered with each dose.—*Pacific Med. Journal*.

Intra-intestinal Injections of Hot Water for the Relief of Shock, Particularly from Hemorrhage.—Rutherford (Rhode Island Medical Monthly, vol. i., No. 9, p. 458) has reported the case of a boy, nine years old, who was accidentally shot in the thigh. There was not much bleeding from the wound, but the leg soon became badly swollen and discolored. Examination showed that the swelling and discoloration arose from an extravasation of blood into the tissues, and it was decided to cut down upon and tie the bleeding vessel (the femoral artery), as the almost bloodless condition of the boy forbade the performance of amputation. In the course of the anesthetization the pulse began to grow weaker, and doubts were felt as to the possibility of proceeding with the operation. In the hope of stimulating the patient a quart of hot water, containing a small quantity of salt, was pumped into the rectum by means of a catheter introduced deeply and connected with a Davidson's syringe. The pulse at once grew stronger and the skin assumed a more healthy appearance. The pulse again weakening, after the lapse of fifteen minutes, two quarts of hot saline solution were injected into the rectum, the tube being introduced for a distance of seventeen inches. The presence of the fluid in the bowel caused an appreciable fulness of the abdomen, which rapidly subsided as the fluid was absorbed. Toward the completion of operation an injection of two quarts of water had again to be made, the tube being introduced for a distance of twenty-three

inches. The pulse now became stronger, and the patient presented a better appearance than at the beginning of the operation. He lived for fourteen days, ultimately dying from septic infection and exhaustion consequent upon gangrene.—*Med. Progress.*

A Touching Tribute to Medical Heroism.—The following touching tribute to medical heroism is from the *New York Sun*. The *Sun* is always just to the medical profession, and in this instance speaks, as it has often done before, from its heart: "One of the first victims of the yellow fever at Brunswick last week was a practising physician, who caught the infection from a patient upon whom he was attending. On Sunday last, one of the physicians of the New York hospital, Dr. Walter Vought, died of typhoid fever, the infection of which had been communicated to him by a child in the hospital. Again, a few days ago, two young doctors of this city caught the small-pox from a patient who was afflicted with it. There are always risks for doctors in attendance upon patients suffering from contagious or infectious maladies. Yet they are always ready to brave the danger, without flinching, in the interest of humanity. Honor to our noble army of doctors. Hundreds of them volunteered for service here last autumn, when the city was threatened with cholera. We do not know how many of them have sent word to Surgeon-General Wyman that they stand ready to go to Brunswick, or to any other part of the south in which the yellow fever may break out. Whatever be the risks from any disease, the medical faculty is ever willing to confront them. Long live the doctors! We have sent American doctors to the cholera-infected ports of Europe, and several of them have done splendid work there this year. If a hundred of them had been needed, we have no doubt that a thousand of them would have offered their services. Heroes are the doctors! They will enter a pest-house without shrinking, attend to every case in it, and do all that can be done to relieve the sufferers. Blessed be the doctors! They are men of science, men of skill, men of earnest purpose, men of sympathetic disposition. They are devoted to their duties."—*Med. Record.*

Nitro-glycerin for Vomiting.—A contributor to the *British Medical Journal* recommends this nitro-glycerin as the most positive remedy for controlling vomiting he has ever employed. He has found it will control all forms of vomiting, whether in adult

or infant, acute or chronic. He has found it of great service in controlling vomiting of gastric catarrh, and in alcohol it acted almost as a specific. Also proved useful in controlling the vomiting of pregnancy.—*Pacific Med. Journal*.

REVIEWS AND BOOK NOTICES.

A Dictionary of Medical Science—Containing a full explanation of the various subjects and terms of anatomy, physiology, medical chemistry, pharmacy, pharmacology, therapeutics, medicine, hygiene, dietetics, pathology, surgery, bacteriology, ophthalmology, otology, laryngology, dermatology, gynecology, obstetrics, pediatrics, medical jurisprudence and dentistry, etc., etc. By Robert Dunglison, M. D., LL. D., late professor of institutes of medicine in the Jefferson Medical College of Philadelphia. Edited by Richard J. Dunglison, A. M., M. D. New (21st) edition, thoroughly revised, greatly enlarged and improved, with the pronunciation, accentuation and derivation of the terms. In one magnificent imperial octavo volume of 1,181 pages. Cloth, \$7.00; leather, \$8.00. Philadelphia: Lea Brothers & Co., 1893.

Dunglison's Medical Dictionary has been the standard authority of medical nomenclature for a very long period, fully sixty years; and in this time, having passed through twenty-one editions, and being still constantly used for reference by the great majority of practitioners, it is so well known that a review of its general scope would be a work of supererogation. It is necessary, however, to call attention to the very great number of changes and additions in this issue, in order that possessors of the previous editions may compare this number with the one already on their shelves.

The coinage of new medical terms has progressed so rapidly that it has required the employment of forty-four thousand new words and phrases to place the work in conformity with present usage.

All old words and terms which have become obsolete have been omitted.

The fault of the older editions has been that they did not give pronunciation; this defect has been remedied in this issue, and simple phonetic spelling placed after each word shows clearly how it should be pronounced. This feature adds immeasurably to its value as a dictionary.

Another thing of great value in the book is the insertion of the etymology of words, which to a classical student is a great boon, as it shows the meaning of the term and lessens the labor of memorizing.

Numerous tables have been introduced, replete with valuable and practical information. Under Diseases are included a concise review of the symptomatology and treatment; under Drugs may be found their properties and doses, and under Poisoning the symptoms, antidotes and treatment.

The page itself has been enlarged and about a hundred new ones added, but still the volume is not too bulky, and the advantages of a single book are manifest.

Taken as a whole it has all the advantages of other works without their disadvantages, is excelled by none, and will surely remain a standard for many years to come.

International Clinics.—A quarterly of clinical lectures on medicine, neurology, pediatrics, surgery, genito-urinary surgery, gynecology, ophthalmology, laryngology, otology, and dermatology. By professors and lectures in the leading medical colleges of the United States, Great Britain and Canada. Edited by John M. Keating, M. D., LL. D.; Judson Daland, M. D.; J. Mitchell Bruce, M. D., F. R. C. P.; David W. Finlay, M. D., F. R. C. P.; Volume I., third series, 1893. J. B. Lippincott Company, Philadelphia, 1893.

The first volume of the third series is composed of the clinical instruction of fifty professors and lectures in the United States, Great Britain and Canada. As each writer has chosen a different subject for deliniation a vast field is covered.

These lectures having been directed to students, and the aim being to make the instruction as practical as possible, abstruse considerations have been omitted, and those symptoms and signs which the particular patient showed to the most advantage have been given the greatest prominence. But while these addresses are not intended in any sense to replace the text books bearing on their subjects, they are of great value in bringing out individual methods of investigation, diagnosis, and especially of treatment, which often differ from the commonly accepted text books.

They are useful to refer to when one has a similar case under observation, and when the contents of one's text book are already known, as they so often bring out new ways of looking at things, and many valuable practical points may be acquired. The style of most of the articles is colloquial, but good, and the perusal of any topic occupies but a few minutes.

A System of Genito-urinary Diseases, Syphilology and Dermatology.—By various authors. Edited by Prince A. Morrow, A. M., M. D. With illustrations, in three volumes. Vol. II., Syphilology. D. Appleton & Co., N. Y., 1893.

The first volume of the System of Genito-urinary Diseases, Syphilology and Dermatology appeared early in the year and was reviewed in the May number of the Annals. It treated of genito-urinary diseases. The present volume, the second of the series of three, is devoted to syphilis and chancroid. In its preparation twenty-three contributors, selected from those who stand high in their specialties, have assisted.

The side lights which have thus been thrown on each branch of the subject, as the result of the extensive practical experience of many competent investigators, have illuminated the subject from every standpoint and have brought out each phase of the disease clearly and distinctly.

The older theories and the discarded forms of treatment of a past age have received but scant mention, while the interesting problems of the present time are fully and impartially discussed. Scattered through the book are numerous illustrations, most of them original, and all admirably executed by a number of methods, such as typogravure, half-tone, and chromo-lithographs. The colored plates, prepared by new processes, are particularly good. This work is destined to take a high rank among those devoted to syphilology.

American Text Book of Gynecology.—Mr. W. B. Saunders, publisher, of Philadelphia, Pa., announces this work as ready for early issue. It is the joint work of Drs. Howard, Kelley, Pryor, Byford, Baldy, Tuttle, and others, who stand before the profession for all that is progressive in gynecology. The work will contain operations not before described in any other book—notably, ablation of fibroid uterus. It is designed as a profusely illustrated reference book for the practitioner, and every practical detail of treatment is precisely stated.

Diseases of the Eye.—By G. E. de Schweinitz, M. D., Professor of Diseases of the Eye, in the Philadelphia Poly-clinic, etc., published by W. B. Saunders, Philadelphia, Pa. 1892. Pp. xii; 641.

The volume is further entitled, "A Hand-book of Ophthalmic Practice, for Students and Practitioners." The greatest portion of the volume is from the pen of Dr. de Schweinitz. The chapters I and IV, and portions of chapters III and XIX are by Dr. James Wallace, who contributes the parts relating to refraction, use of the ophthalmoscope and muscular errors. The short contribution to the subject of retinoscopy is by Dr. Edward Jackson. In expressing a general opinion of the scope and character of the work, it may be said that it is creditably performed, and the book one of the best of the text books of ophthalmology recently issued. It may not be amiss to mention a few of the errors, typographical and otherwise, of which there are altogether too many. On page 61, near the top, it might be understood that a "pink zone," produced by congestion, (circum-corneal zone) was indicative only of iritis. On page 95 is found that much copied blunder, stating that rays of light reflected into the eye by the ophthalmoscope, "are then reflected back from the retina and enter the eye of the observer." Ordinary reflection from the interior of the eye has but little to do with the formation of the ophthalmoscopic image, and if it were true that the light, which formed the image were reflected back by the retina, the usual view of the fundus could not be obtained. On page 118, the bottom paragraph is most inaccurate from faulty expression. On page 200 it is stated that the diseases Xanthelasm and Xanthoma are identical. On page 300, in describing the swollen tissue in Episcleritis, the author states: "the elevation is 'back-shaped;'" it would seem desirable to have a definition of the descriptive compound word. We read on page 588 the directions for making a "Sæmisah section" in the treatment of corneal ulcer,— "the knife is entered on one side of the cornea with its cutting edge upward"—which should be cutting edge forward. Page 611 mentions "perfectly cold boracic acid solution" without explaining what a "perfectly cold" solution might be. The illustrations, as stated in the preface are in some instances borrowed from other publications. It is to be hoped that such technically inaccurate illustrations as Fig. 186 and 205 (both from Juler) will never be

borrowed again. The colored plates of the ophthalmoscopic appearance of the fundus are quite well executed, but fig. 1, plate II, representing a rare form of congenital excavation of the nerve-head, and taken from Jaeger, can have no useful purpose in a text-book designed for the guidance of students and general practitioners, but will probably do harm. The use of the term "ophthalmia" to the exclusion of the more correct term "conjunctivitis" must be regarded as unfortunate, and attempts a decided retrogression in ophthalmic nomenclature.

The descriptions of the various diseases and the discussions of the appropriate treatment, are as a rule, excellent. The pages devoted to the consideration of trachoma are especially commendable. The proportion of space to material, and the selection of the material, evidence unusual judgment. When another edition shall have corrected the inaccuracies of the present, then Dr. de Schweinitz's volume will be one of the most suitable for college use.

PAMPHLETS RECEIVED.

Second Annual Report of the State Medical Examining Board of Washington.

Sterilization of Milk at 75° C. (Pasteurization) and Its Efficiency in Destroying Pathogenic Organisms. By K. G. Freeman, M. D.

The Successful Treatment of Typhoid Fever. A Reply to Dr. Page. By C. M. Buchanan, M. D.

Suturing the Tendo Achillis in the Correction of Deformities of the Feet. By H. A. Wilson, M. D.

Zymotic Diseases in Chicago. Sanitary Exhibit of the Illinois State Board of Health. World's Columbian Exposition, 1893.

Movable Kidney; with a report of Cases Treated by Nephrorrhaphy. By G. M. Edebohls, A. M., M. D.

Carcinoma on the Floor of the Pelvis. By Mary A. Dixon Jones, M. D.

Microscopical Studies in Pelvic Peritonitis. By M. A. D. Jones, M. D.

Colpo-Hysterectomy for Malignant Disease. By M. A. D. Jones, M. D.

Sterility in Women. Causes, Treatment and Illustrative Cases. By M. A. D. Jones, M. D.

Diagnosis and Some of the Clinical Aspects of Gyroma and Endothelioma of the Ovary. By M. A. D. Jones, M. D.

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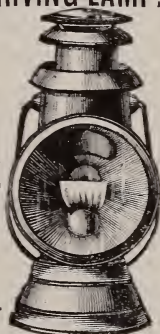
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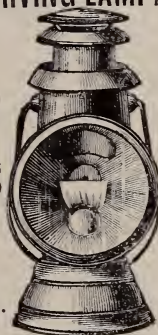
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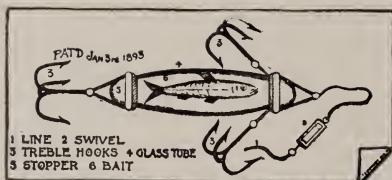
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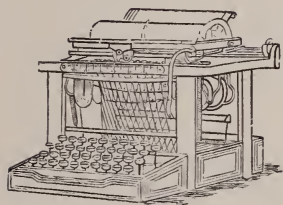
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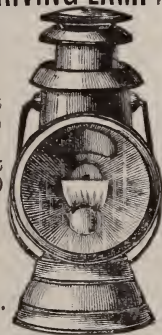
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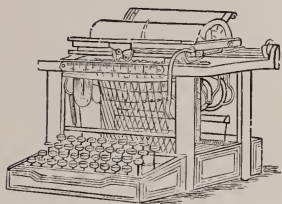
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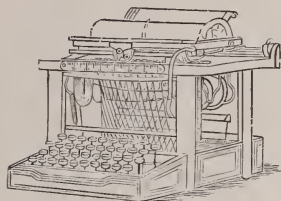
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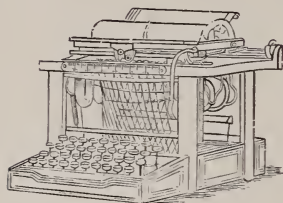
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THE ALBANY Medical Annals

JOURNAL OF THE
ALUMNI ASSOCIATION OF THE ALBANY MEDICAL COLLEGE.

EDITED BY

HOWARD VAN RENSSELAER, M. D.

VOL. XIV, NO. II.

NOVEMBER, 1893.

\$1 A YEAR

H. B. KIMMEY, Publisher, 496 Broadway, Albany, N. Y.

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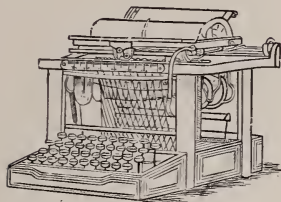
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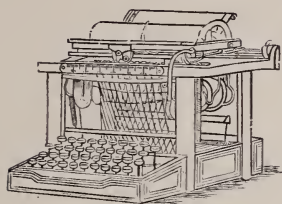
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